

1998-2002

Wisconsin
Cancer Incidence
and Mortality

*Bureau of Health Information and Policy
Division of Public Health
Wisconsin Department of Health and Family Services*

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August 2005

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Foreword

Wisconsin Cancer Incidence and Mortality, 1998-2002 presents summary information about Wisconsin cancer incidence (new cancer cases) and mortality (deaths due to cancer) that occurred from 1998 through 2002. The Wisconsin Cancer Reporting System (WCRS), part of the Bureau of Health Information and Policy, Division of Public Health, Department of Health and Family Services (DHFS), collects reports of all newly diagnosed Wisconsin resident cancer cases from hospitals, clinics, physician offices and out-of-state central cancer registries. This report would not be possible without the conscientious reporting of all these sources.

Since 1976, WCRS has collected cancer incidence data on Wisconsin residents as mandated by section 255.04, Wisconsin Statutes, and HFS 124.05(3)(h), Wisconsin Administrative Code. All invasive and noninvasive malignant tumors, except basal and squamous cell carcinomas of the skin and *in situ* cancers of the cervix uteri, are reportable to WCRS. Starting in 1994, WCRS entered into a cooperative agreement with the U.S. Centers for Disease Control and Prevention (CDC) and became part of the National Program of Cancer Registries (NPCR).

An important change in this edition of the WCRS annual report is that for the first time cancer incidence and mortality rates are presented in site-specific chapters. For the first time, it also provides five-year average incidence and mortality rates for Wisconsin counties and four race groups (African-American, Asian/Pacific Islander, American Indian and White). The report's new format is largely adapted from the West Virginia Cancer Registry's annual report and we gratefully acknowledge that program's assistance and guidance. This report covers invasive cancer data (except *in situ* bladder cancer), as is the standard practice in most state and national cancer publications.

Wisconsin Cancer Incidence and Mortality, 1998-2002 was produced by the Department of Health and Family Services. Cancer Reporting System staff (Diane Austin, Robert Borchers, Linda Ramsden and Kim Ortman) collected, edited and reviewed the data used in this report. Laura Stephenson created the final data set and prepared data tables and graphs. Mary Foote developed the statistical data and text for this report. Denise LeCaptain compiled the report and formatted tables and graphs. The report was edited by Patricia Nametz. It was prepared under the supervision of Judith Nugent, Section Chief, Health Care Information Section, and the general direction of Susan Wood, Director of Bureau of Health Information and Policy.

This publication, as well as other information about WCRS operations and previous annual and special reports, is available at the Department's Web site (see address below). Requests for additional cancer incidence data may be addressed to:

Cancer Reporting System, Bureau of Health Information and Policy
Division of Public Health
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<http://dhfs.wisconsin.gov/wcrs/index.htm>

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Introductory Guide for Reading this Report

Content of the Report. *Wisconsin Cancer Incidence and Mortality 1998-2002* summarizes data on cases among Wisconsin residents diagnosed with cancer between January 1, 1998 and December 31, 2002 and reported to the Wisconsin Cancer Reporting System (WCRS) by January 31, 2005. Approximately 95 percent of WCRS's estimated 1998-2002 cases are included in this report (a few cases are reported after publication). Mortality data were drawn from the 1998-2002 Wisconsin resident death files where the underlying cause of death was listed as cancer.

In this report, tables and graphs for incidence and mortality data are presented for the major cancer sites. Cancer site classifications are those established by the Surveillance, Epidemiology, and End Results (SEER) program at the National Cancer Institute (NCI) and are used by the North American Association of Central Cancer Registries (NAACCR). These standard site classifications allow comparisons to national and other state publications.

In addition to demographic characteristics of sex and age, this report presents race in four categories: White, African American, American Indian and Asian/Pacific Islander. Data on Hispanic ethnicity are not provided in this publication because recent documentation of misclassification in cancer case reporting suggests undercounting for Hispanics during the years covered in this report. Five years of combined data are used to present rates by race and county of residence at diagnosis. All rates based on five years of data should be interpreted as average annual rates. Five-year averages provide more reliable age-adjusted rates for the relatively small minority racial groups in Wisconsin.

The county variable in this report is based on the patient's residence at time of diagnosis for incidence data, and residence at time of death for mortality data. As with the race variable, age-adjusted rates by county were calculated for 1998-2002 combined years of data, because the annual number of cases in each county was often small.

Data Sources. This report includes all cancer cases diagnosed in 1998-2002 among Wisconsin residents. These cases were reported by Wisconsin hospitals, clinics and physician offices, cooperating out-of-state cancer registries and selected Minnesota hospitals.

The mortality data were obtained from death certificates for Wisconsin residents, collected and coded by the Vital Records Section, Bureau of Health Information and Policy. Cancer mortality rate calculations are based on the underlying cause of death recorded on the death certificate.

Invasive Cases. This annual report focuses on invasive cancer data to make the data comparable with national data and data from other states. Following national standards, invasive cancer rates exclude all *in situ* cancer cases except those of the urinary bladder.

Age-adjusted Incidence and Mortality Rates. Following National Cancer Institute (NCI) and CDC guidelines, WCRS age-adjusts incidence and mortality rates per 100,000 population for Wisconsin residents to the U.S. Census Bureau's 2000 standard population age distribution. The SEER*Stat software package, from NCI, was used to calculate both incidence and mortality rates. The populations used as denominators for all calculations are described in Appendix 6. Rates are age-adjusted to account for differences in age distribution over time and across different geographic regions.

Cancer incidence rates reflect the number of newly diagnosed cancers in the population, rather than the number of individuals who have been newly diagnosed with cancer. For example, in this report, a person diagnosed with two cancers in the same year will be counted as two cancer cases in the annual count of cancer incidence. Thus "cancer cases" are distinguished from "individuals with cancer."

Incidence and Mortality Comparisons. The incidence data presented in this report reflect new cancers diagnosed in 1998-2002. The mortality data represent cancer deaths that occurred in 1998-2002; the cancer that led to the death *may have been diagnosed prior to* 1998. It is important that readers not make assumptions about survival rates or percents based on the incidence/mortality ratios.

Data Quality and Limitations. This report represents data collected from different types of facilities. Reporting sources vary in their ability to provide timely and complete data, and WCRS appreciates the efforts of reporting facilities to ensure the overall good quality of Wisconsin cancer reports. However, variations in facility compliance and reporting practices exist based on the resources of the facility and the experience and qualifications of the reporters.

All Wisconsin-based facilities are required by Wisconsin statute to abstract and report cancer incidence data to WCRS within six months from the date of diagnosis or date of first contact with the patient. This 'six-month rule' is the national standard that all central cancer registries work to achieve and maintain.

WCRS staff edit, process and analyze the cancer data received. Quality assurance measures are in place to identify incomplete and/or inaccurate incoming data. Facility-specific contacts (in person, phone, or written correspondence) and group training sessions are implemented as needed (WCRS-initiated) or requested (facility-initiated).

The five-year time frame of this report provides increased reliability for certain data analyses, as small numbers of cases are reported for less common cancer sites, minority race groups and county-level data. When reviewing the statewide annual data provided in this report, caution is warranted when computing rates or relative proportions for specific cancer sites due to the relative rarity of some cancers.

Chapter 1: All Cancer Sites

Incidence

Each year from 1998 through 2002, an annual average of 26,532 Wisconsin residents were diagnosed with cancer. The average age-adjusted incidence rate for all cancers was 482.6 per 100,000 Wisconsin residents (Table 1.1).

For Wisconsin males during 1998-2002, the most commonly diagnosed cancer was prostate cancer (average annual age-adjusted rate of 167.0 per 100,000 males). The second leading cancer among males was cancer of the lung and bronchus (84.8 per 100,000). Cancer of the colon and rectum was the third leading cancer site among males (67.5 per 100,000) (Figure 1.7).

For Wisconsin females during 1998-2002, the most commonly diagnosed cancer was cancer of the breast (average annual age-adjusted rate of 135.7 per 100,000 females). Cancer of the lung and bronchus was the second leading cancer among females (51.6 per 100,000), and cancer of the colon and rectum was third (47.5 per 100,000) (Figure 1.8).

Mortality

Cancer is second only to heart disease as the leading cause of death in Wisconsin, with an average of 10,760 cancer deaths each year from 1998 through 2002. The average age-adjusted mortality rate was 192.5 per 100,000 for all cancers combined (Table 1.2).

Among females in Wisconsin during 1998-2002, the leading cause of cancer mortality was cancer of lung and bronchus (37.2 per 100,000). Breast cancer ranked second as a cause of cancer mortality among women (25.8 per 100,000) and cancer of the colon and rectum third (16.6 per 100,000) (Figure 1.8).

Among males in Wisconsin during 1998-2002, lung and bronchial cancer was the leading cause of cancer mortality (average annual age-adjusted mortality rate of 66.7 per 100,000), causing twice the deaths of any other cancer. Prostate cancer was the second leading cause of cancer mortality among males (31.8 per 100,000) and cancer of the colon and rectum was third (24.9 per 100,000) (Figure 1.7).

Table 1.1. Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	13,641	564.6	-1.4%	12,890	427.4	-1.2%	26,532	482.6	-1.2%
1998	13,436	574.7	N/A	13,099	440.8	N/A	26,535	493.1	N/A
1999	13,826	582.7	N/A	12,798	430.0	N/A	26,624	490.7	N/A
2000	13,542	560.2	N/A	12,729	423.5	N/A	26,271	478.8	N/A
2001	13,781	561.5	N/A	13,077	429.8	N/A	26,858	483.0	N/A
2002	13,622	545.5	N/A	12,750	414.1	N/A	26,372	468.4	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Number of cases is for all invasive cancers and in situ bladder cases. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

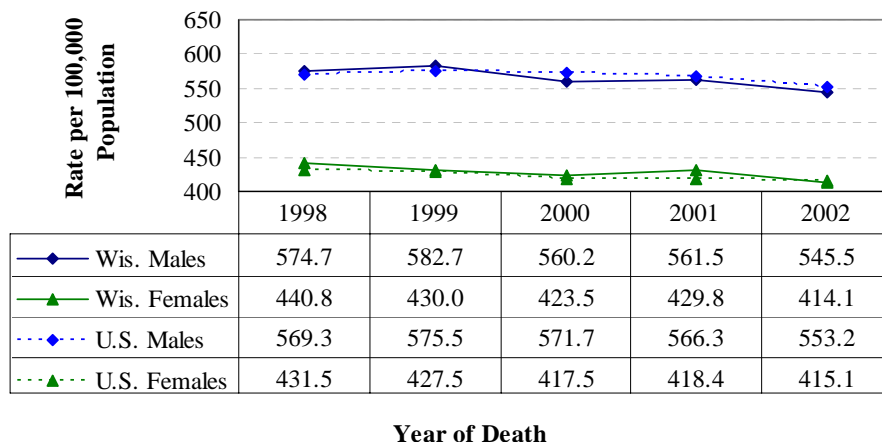
Table 1.2. Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998-2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	5601	241.6	-2.2%	5,159	161.1	-0.7%	10,760	192.5	-1.3%
1998	5,668	253.0	N/A	5,221	166.3	N/A	10,889	199.2	N/A
1999	5,679	248.7	N/A	5,052	159.7	N/A	10,731	194.7	N/A
2000	5,522	238.9	N/A	5,098	159.4	N/A	10,620	190.2	N/A
2001	5,578	236.7	N/A	5,174	159.1	N/A	10,752	189.9	N/A
2002	5,557	231.6	N/A	5,252	161.1	N/A	10,809	188.7	N/A

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Number of cases is for all invasive cancers and in situ bladder cases. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

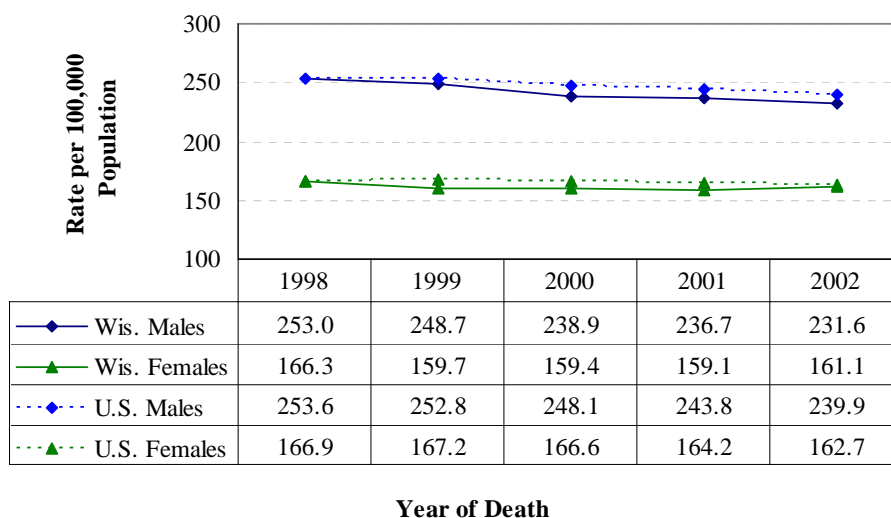
Figure 1.1. Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

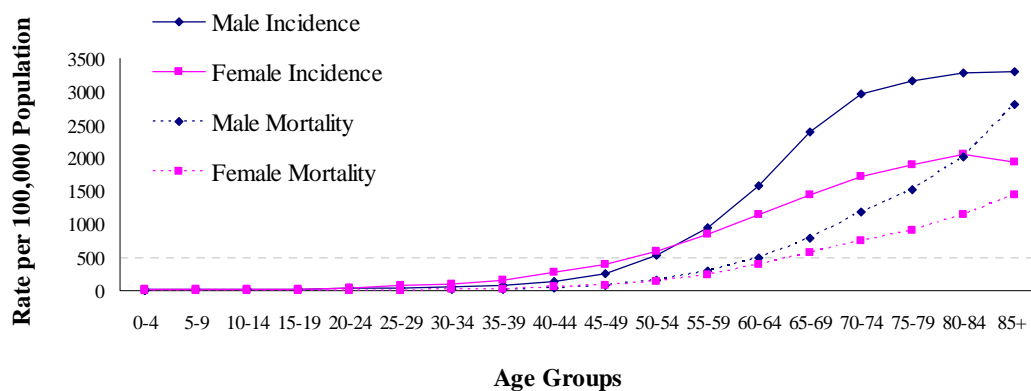
Figure 1.2. Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

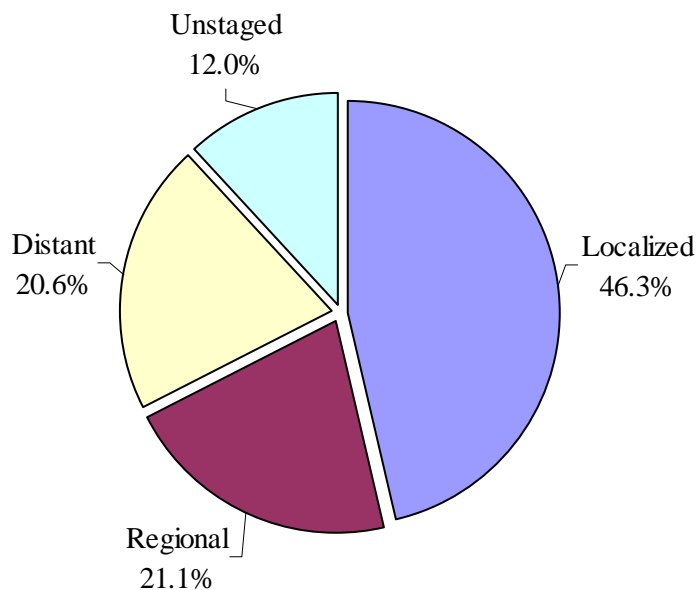
Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

Figure 1.3. Cancer, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



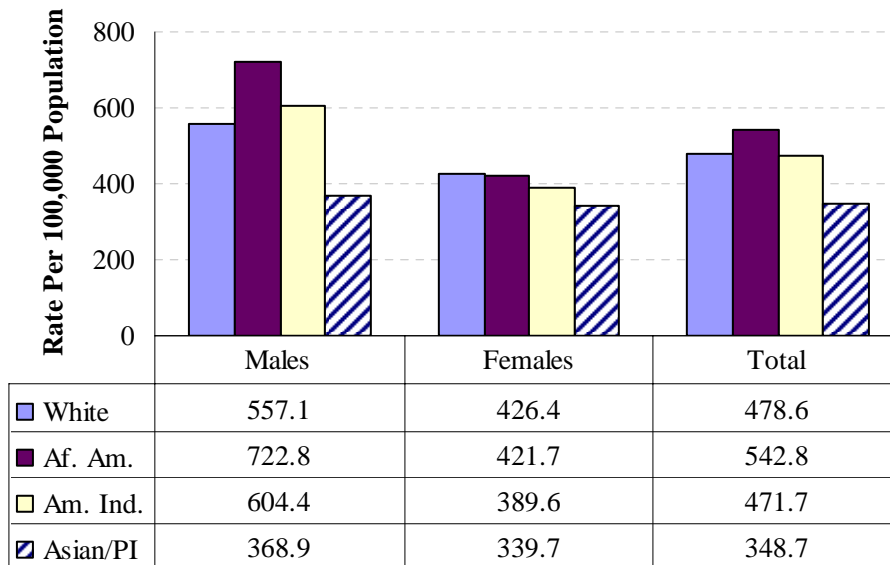
Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.
 Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

Figure 1.4. Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.
 Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

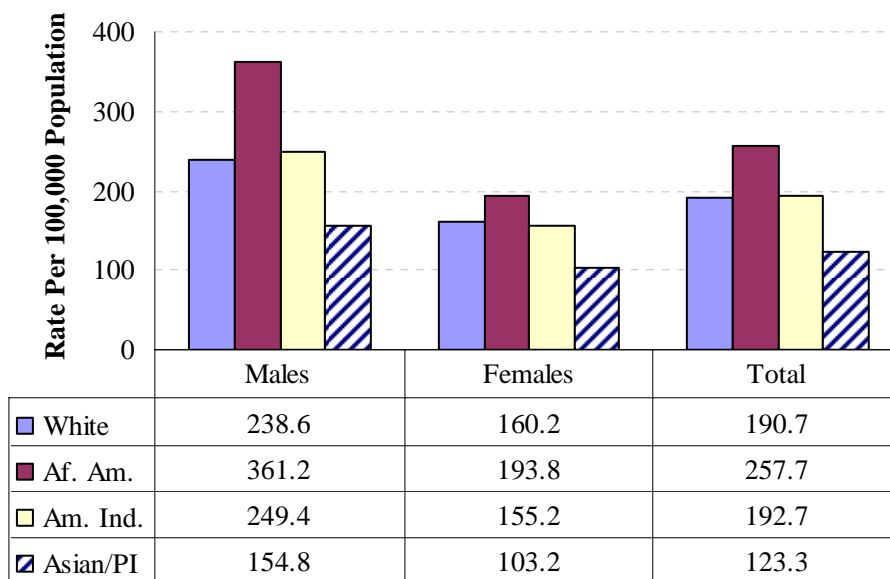
**Figure 1.5. Cancer, Age-Adjusted Incidence Rates,
by Race and Sex, Wisconsin, 1998 - 2002**



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

**Figure 1.6. Cancer, Age-Adjusted Mortality Rates,
by Race and Sex, Wisconsin, 1998 - 2002**



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

Table 1.3. Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates and Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	498	349.7	318.6	384.0	286	196.4	173.8	222.4
Ashland County	473	486.8	443.3	534.0	200	193.5	167.1	223.5
Barron County	1,039	384.0	360.8	408.5	532	185.9	170.3	202.9
Bayfield County	401	422.2	381.6	467.4	237	251.3	220.2	287.2
Brown County	4,843	477.2	463.8	490.9	1,830	181.9	173.6	190.5
Buffalo County	372	442.5	398.3	491.1	170	196.8	168.2	229.9
Burnett County	412	367.5	331.9	407.2	260	223.9	197.0	254.7
Calumet County	728	398.8	370.2	429.0	322	181.7	162.3	202.8
Chippewa County	1,431	467.7	443.7	492.8	594	187.8	172.9	203.7
Clark County	876	453.3	423.2	485.2	331	159.2	142.1	178.1
Columbia County	1,492	516.6	490.6	543.7	620	208.0	191.9	225.3
Crawford County	505	488.9	446.9	534.6	203	189.5	164.2	218.5
Dane County	8,514	477.4	467.2	487.8	3,026	176.7	170.4	183.2
Dodge County	2,117	463.7	444.1	484.0	984	208.0	195.1	221.6
Door County	1,040	541.2	508.3	576.4	355	176.9	158.9	197.3
Douglas County	933	387.0	362.5	413.0	554	222.4	204.2	242.0
Dunn County	658	366.6	339.0	395.9	311	171.2	152.6	191.6
Eau Claire County	1,727	389.9	371.6	408.8	787	172.9	161.0	185.5
Florence County	121	376.4	311.3	455.8	57	166.7	126.0	222.1
Fond du Lac County	2,720	517.6	498.2	537.6	1,046	190.3	178.9	202.3
Forest County	309	456.5	405.8	513.2	135	193.9	162.1	231.8
Grant County	1,133	409.0	385.3	434.0	518	176.3	161.3	192.6
Green County	739	399.8	371.3	430.2	332	172.1	153.9	192.1
Green Lake County	592	476.9	438.5	518.5	254	190.1	167.1	216.3
Iowa County	475	402.6	367.2	441.0	223	188.0	164.1	214.9
Iron County	227	421.1	366.2	488.4	100	174.8	140.8	222.0
Jackson County	503	469.2	428.9	512.8	215	195.6	170.2	224.2
Jefferson County	1,798	474.5	452.8	497.0	757	198.5	184.6	213.2
Juneau County	768	512.1	476.2	550.5	361	232.8	209.2	258.8
Kenosha County	3,346	480.5	464.3	497.1	1,381	199.1	188.7	209.9
Kewaunee County	584	508.6	467.9	552.4	219	184.0	160.2	210.8
La Crosse County	2,646	510.0	490.7	529.9	1,027	193.9	182.2	206.3
Lafayette County	364	390.5	351.0	433.9	169	174.7	149.2	204.1
Langlade County	596	429.4	395.0	466.7	264	177.7	156.6	201.8
Lincoln County	1,025	576.1	541.0	613.3	372	197.6	177.8	219.5
Manitowoc County	2,241	466.0	446.8	486.0	934	184.5	172.8	197.0
Marathon County	2,861	443.4	427.3	460.0	1,207	184.5	174.2	195.2

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	1,283	459.6	434.5	486.2	568	193.3	177.6	210.4
Marquette County	563	550.5	504.8	600.3	225	218.7	190.7	250.9
Menominee County	107	653.9	518.6	827.4	47	316.1	219.9	454.0
Milwaukee County	23,386	509.1	502.6	515.7	10,028	213.5	209.3	217.8
Monroe County	1,037	474.2	445.7	504.2	444	199.9	181.6	219.6
Oconto County	955	463.7	434.6	494.5	422	201.4	182.6	222.0
Oneida County	1,363	546.1	517.1	577.0	489	192.7	175.8	211.4
Outagamie County	3,876	531.2	514.6	548.3	1,372	190.0	180.1	200.4
Ozaukee County	2,112	486.2	465.6	507.6	778	184.0	171.3	197.6
Pepin County	196	445.6	384.4	515.7	93	195.5	157.1	242.8
Pierce County	484	320.9	292.7	351.1	261	176.2	155.3	199.1
Polk County	846	353.3	329.8	378.3	448	182.7	166.1	200.8
Portage County	1,327	439.0	415.7	463.4	511	169.4	155.0	184.8
Price County	465	438.8	399.2	482.6	188	167.3	143.9	195.1
Racine County	4,831	516.2	501.7	531.0	1,824	195.5	186.6	204.6
Richland County	393	358.3	323.2	396.7	211	182.6	158.5	210.1
Rock County	3,910	508.1	492.3	524.3	1,542	199.8	189.9	210.0
Rusk County	436	444.1	402.8	489.5	197	189.9	163.8	220.1
St Croix County	875	321.1	300.0	343.5	512	192.5	176.0	210.1
Sauk County	1,470	484.6	460.1	510.3	576	182.8	168.1	198.6
Sawyer County	510	463.9	424.0	507.8	241	217.1	190.3	247.8
Shawano County	1,197	479.0	451.9	507.6	507	192.1	175.6	210.0
Sheboygan County	3,089	513.7	495.6	532.2	1,164	186.6	176.0	197.8
Taylor County	495	447.6	408.7	489.7	215	180.9	157.3	207.6
Trempealeau County	794	489.8	455.7	526.1	299	169.4	150.3	190.6
Vernon County	905	525.2	491.1	561.6	354	191.2	171.6	213.0
Vilas County	891	525.6	490.3	564.0	354	204.3	183.1	228.7
Walworth County	2,278	484.6	464.8	505.0	914	191.1	178.9	204.0
Washburn County	466	429.2	390.5	471.9	237	211.8	185.5	242.2
Washington County	2,729	483.8	465.8	502.4	975	177.3	166.3	188.8
Waukesha County	9,699	531.9	521.3	542.6	3,314	185.6	179.3	192.1
Waupaca County	1,576	502.2	477.4	528.2	675	200.2	185.2	216.4
Waushara County	683	435.2	402.6	470.7	329	206.0	184.1	230.8
Winnebago County	3,973	510.6	494.8	526.8	1,532	193.2	183.6	203.2
Wood County	2,358	547.2	525.2	570.1	782	171.4	159.5	184.1

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Total cases exclude in situ cases except for in situ bladder cancer. Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 1: All Cancer Sites

Table 1.4. Most Common Cancers, by Age and Sex, Wisconsin, 1998-2002

Age in Years										
	Less than 15		15 to 24		25 to 44		45 to 64		65 and older	
Sex	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate
Male	Leukemia	4.5	Testis	6.7	Testis	14.7	Prostate	216.6	Prostate	932.6
	Brain & Other Nerv. Sys.	2.9	Hodgkin's Lymphoma	4.5	Melanoma of the Skin	9.0	Lung and Bronchus	100.0	Lung and Bronchus	479.7
	Non-Hodgkin's Lymphoma	1.1	Leukemia	2.6	Colon and Rectum	7.0	Colon and Rectum	77.3	Colon and Rectum	371.5
	Kidney and Renal Pelvis	1.0	Brain & Other Nerv. Sys.	2.5	Non-Hodgkin's Lymphoma	6.9	Urinary Bladder	35.3	Urinary Bladder	225.1
	Hodgkin's Lymphoma	0.8	Melanoma of the Skin	2.5	Brain & Other Nerv. Sys.	5.3	Oral Cavity & Pharynx	31.8	Non-Hodgkin's Lymphoma	107.8
Female	Leukemia	4.3	Thyroid	5.5	Breast	57.2	Breast	269.6	Breast	466.2
	Brain & Other Nerv. Sys.	2.7	Hodgkin's Lymphoma	4.7	Thyroid	15.5	Lung and Bronchus	78.5	Colon and Rectum	280.3
	Kidney and Renal Pelvis	1.1	Melanoma of the Skin	3.4	Cervix Uteri	15.4	Corpus & Uterus, NOS	58.7	Lung and Bronchus	252.8
	Non-Hodgkin's Lymphoma	0.7	Cervix Uteri	3.3	Melanoma of the Skin	12.8	Colon and Rectum	52.4	Corpus & Uterus, NOS	96.4
	Hodgkin's Lymphoma	0.3	Ovary	1.8	Colon and Rectum	6.7	Ovary	29.5	Non-Hodgkin's Lymphoma	77.8

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are based on five-year average age-specific incidence per 100,000 population and show the five cancers with the highest age-specific rates for each age group.

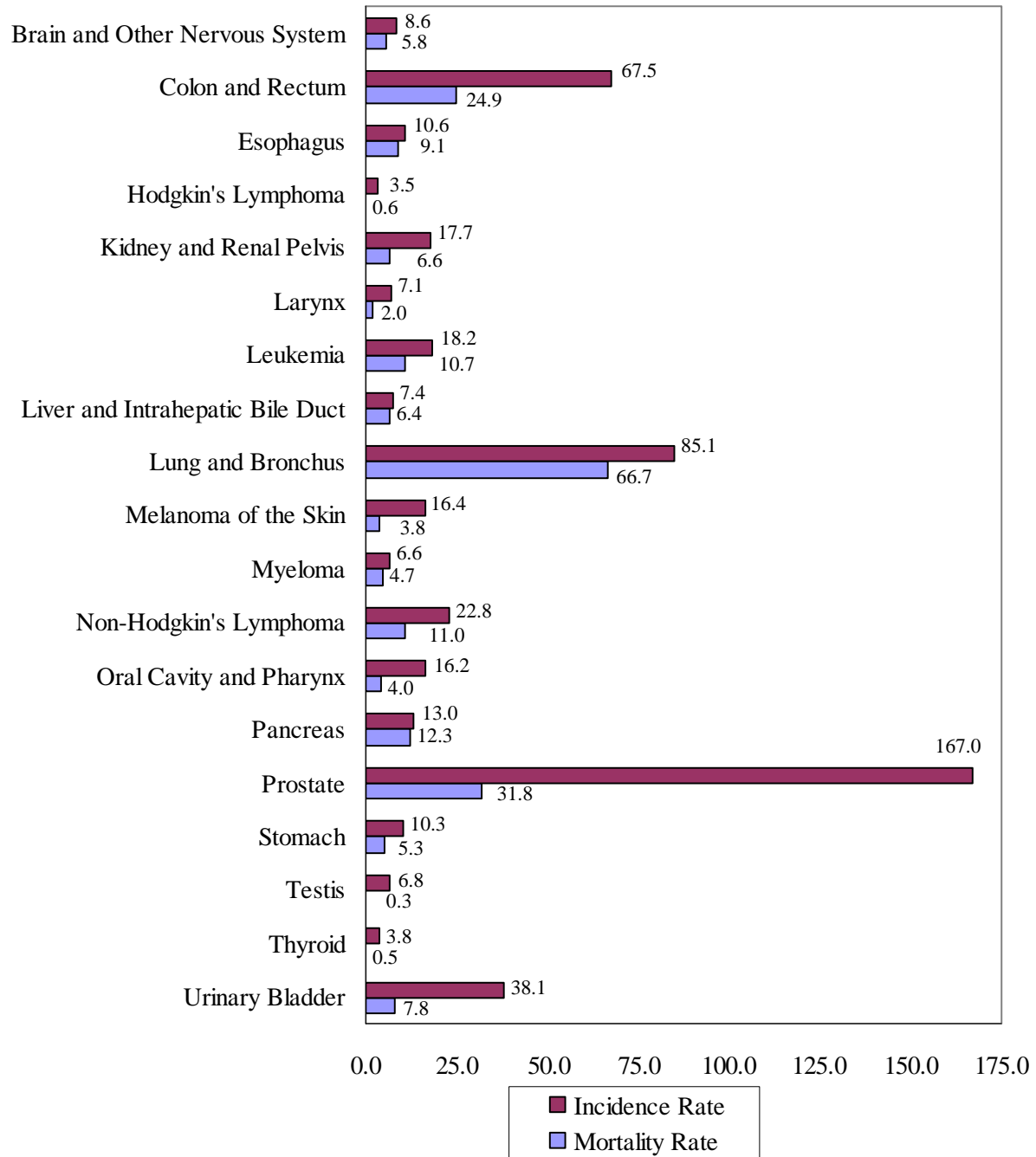
Table 1.5. Most Common Causes of Cancer Death, by Age and Sex, Wisconsin, 1998-2002

Age in Years										
	Less than 15		15 to 24		25 to 44		45 to 64		65 and older	
Sex	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate
Male	Leukemia	0.8	Leukemia	1.1	Lung and Bronchus	2.9	Lung and Bronchus	67.1	Lung and Bronchus	393.9
	Brain & Other Nerv. Sys.	0.5	Brain & Other Nerv. Sys.	0.9	Brain & Other Nerv. Sys.	2.8	Colon and Rectum	21.0	Prostate	215.8
	Liver and Intrahepatic Bile Duct	0.1	Non-Hodgkin's Lymphoma	0.9	Colon and Rectum	1.6	Pancreas	14.1	Colon and Rectum	148.1
	Hodgkin's Lymphoma	0.1	Hodgkin's Lymphoma	0.3	Non-Hodgkin's Lymphoma	1.6	Esophagus	11.4	Pancreas	68.4
			Testis	0.2	Leukemia	1.6	Brain & Other Nerv. Sys.	9.5	Non-Hodgkin's Lymphoma	62.8
Female	Brain & Other Nerv. Sys.	0.5	Brain & Other Nerv. Sys.	0.5	Breast	7.3	Lung and Bronchus	49.2	Lung and Bronchus	200.8
	Leukemia	0.5	Ovary	0.4	Lung and Bronchus	3.1	Breast	38.7	Breast	126.9
	Kidney and Renal Pelvis	0.1	Leukemia	0.4	Brain & Other Nerv. Sys.	1.8	Colon and Rectum	13.0	Colon and Rectum	115.5
	Non-Hodgkin's Lymphoma	0.1	Hodgkin's Lymphoma	0.3	Ovary	1.7	Ovary	12.8	Pancreas	60.7
			Non-Hodgkin's Lymphoma	0.3	Cervix Uteri	1.6	Pancreas	9.5	Ovary	45.2

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are based on five-year average age-specific mortality per 100,000 population and show the five cancers with the highest age-specific rates for each age group.

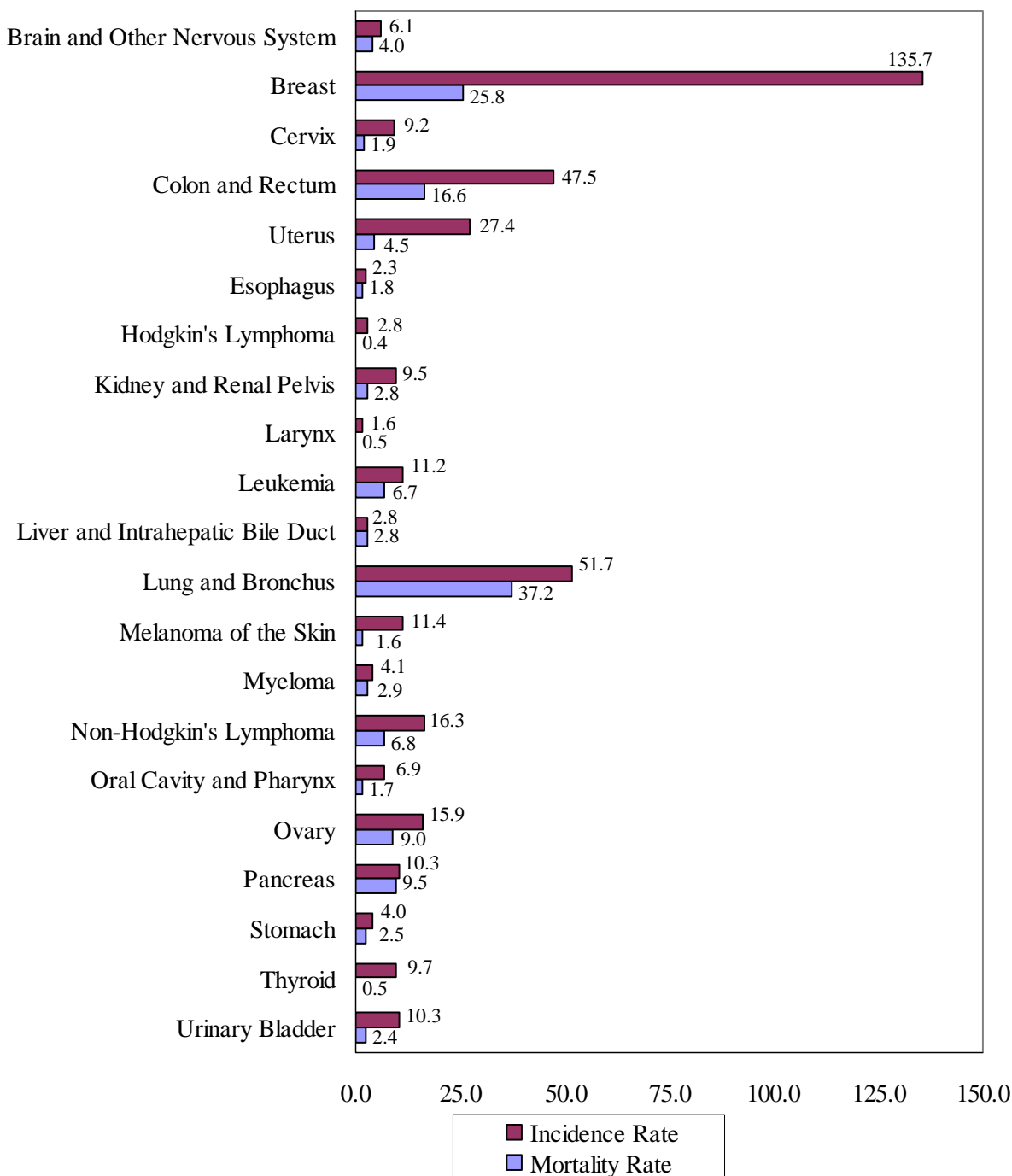
Figure 1.7. Burden of Cancer Incidence and Mortality Among Wisconsin Males, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are age-adjusted to the 2000 U.S. standard population and show the five-year average annual rate of new cases (incidence) and deaths (mortality) per 100,000 Wisconsin males.

Figure 1.8. Burden of Cancer Incidence and Mortality Among Wisconsin Females, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are age-adjusted to the 2000 U.S. standard population and show the five-year average annual rate of new cases (incidence) and deaths (mortality) per 100,000 Wisconsin females.

Chapter 2: Breast Cancer (Female)

Incidence

During 1998-2002, invasive breast cancer was the most commonly diagnosed cancer among Wisconsin women (Figure 1.8). Each year, approximately 4,000 women were diagnosed with this disease (Table 2.1).

Breast cancer incidence increased dramatically with age. Compared to women aged 24-44, those aged 65 and older were eight times more likely to be diagnosed with breast cancer (57.2 and 466.2 per 100,000 age-specific population, respectively) (Table 1.4).

During 1998-2002, almost two-thirds of invasive breast cancer cases (62%) were diagnosed at an early (localized) stage (Figure 2.4).

White women were more likely to be diagnosed with breast cancer (135.9 per 100,000) than women in other racial groups. African-American women had the second highest breast cancer rate (124.3 per 100,000), followed by American Indian women (89.2 per 100,000) and Asian/Pacific Islander women (89.3 per 100,000) (Figure 2.5).

Mortality

Breast cancer was the second leading cause of female cancer deaths (second only to lung cancer) in Wisconsin (Figure 1.8). Approximately 814 women died of breast cancer each year from 1998 through 2002 (Table 2.2).

Breast cancer mortality rates vary between different racial groups. African American women have the highest mortality rate (31.6 per 100,000), followed by white women (25.6 per 100,000), American Indian women (21.2 per 100,000) and Asian /Pacific Islander women (11 per 100,000) (Figure 2.6).

Wisconsin's female breast cancer mortality rate in 2002 (24.4 per 100,000) was slightly less than the national rate (25.5 per 100,000) (Figure 2.2).

Table 2.1. Female Breast Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998 - 2002

Year of Diagnosis	Number of Cases	Age-Adj. Rate	APC
Annual Average 1998-2002	4,001	135.7	-1.2%
1998	3,918	135.8	N/A
1999	4,041	139.0	N/A
2000	4,067	138.5	N/A
2001	4,098	137.4	N/A
2002	3,879	128.4	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

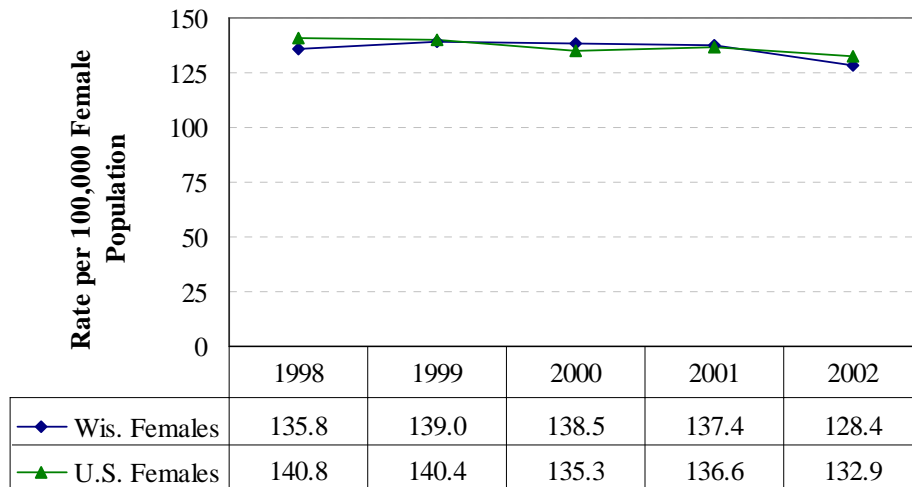
Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Table 2.2. Female Breast Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998-2002

Year of Death	Number of Deaths	Age-Adj. Rate	APC
Annual Average 1998-2002	814	25.8	-2.9%
1998	854	27.6	N/A
1999	824	26.6	N/A
2000	784	25.1	N/A
2001	819	25.5	N/A
2002	788	24.4	N/A

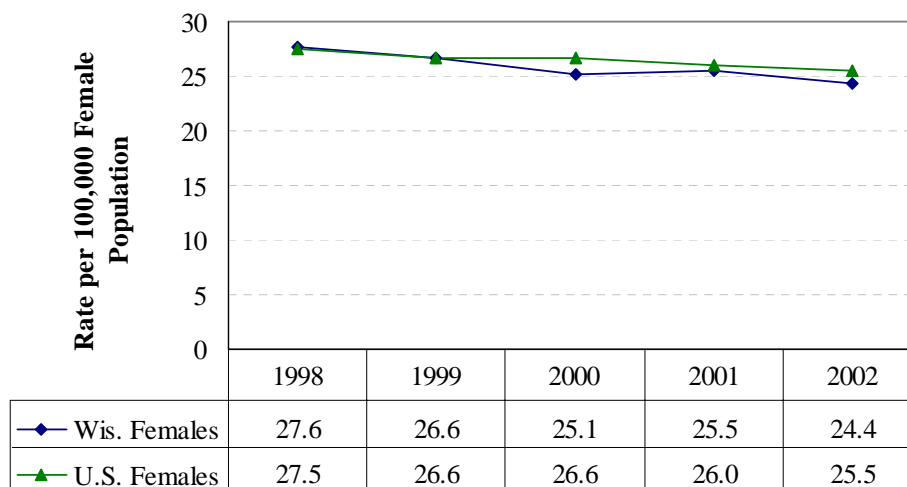
Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Figure 2.1. Female Breast Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 1998 - 2002**Year of Diagnosis**

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

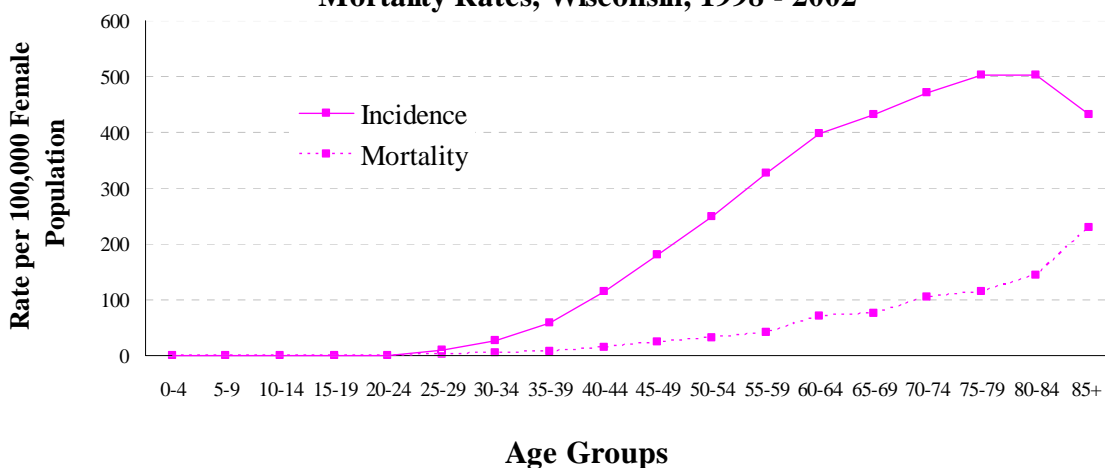
Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

Figure 2.2. Female Breast Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 1998 - 2002**Year of Death**

Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

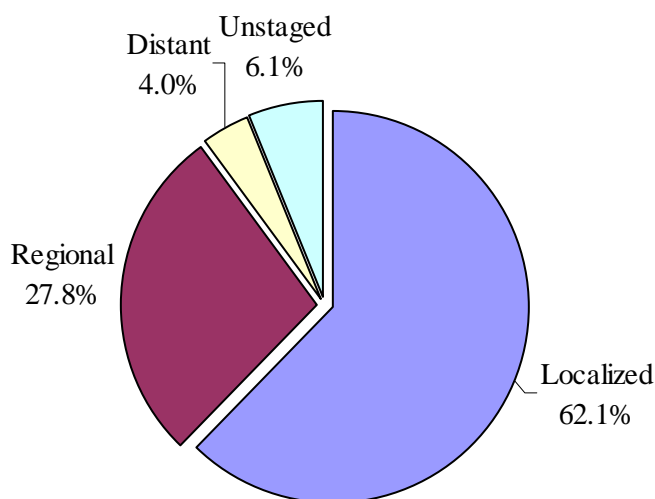
Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

Figure 2.3. Female Breast Cancer, Age-Specific Incidence and Mortality Rates, Wisconsin, 1998 - 2002



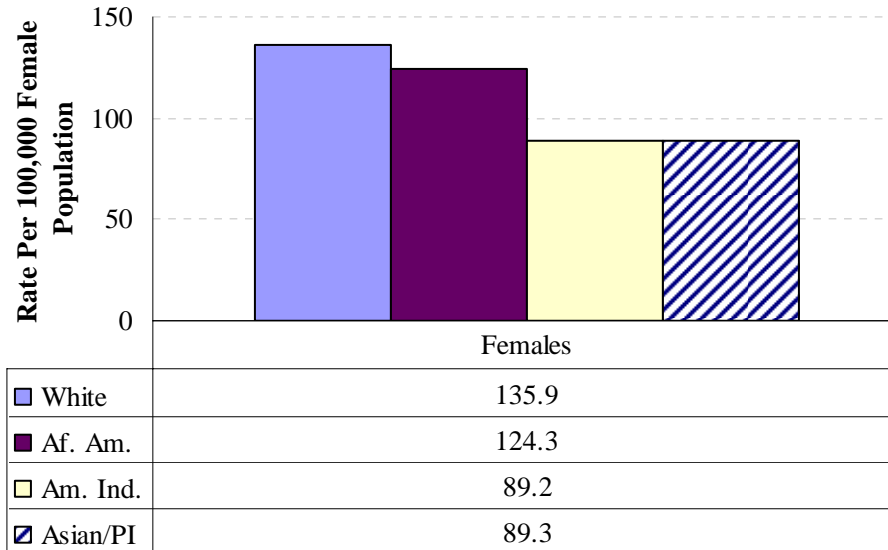
Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.
 Note: Rates are per 100,000 female population (1998-2002) for each age group.

Figure 2.4. Female Breast Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.
 Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

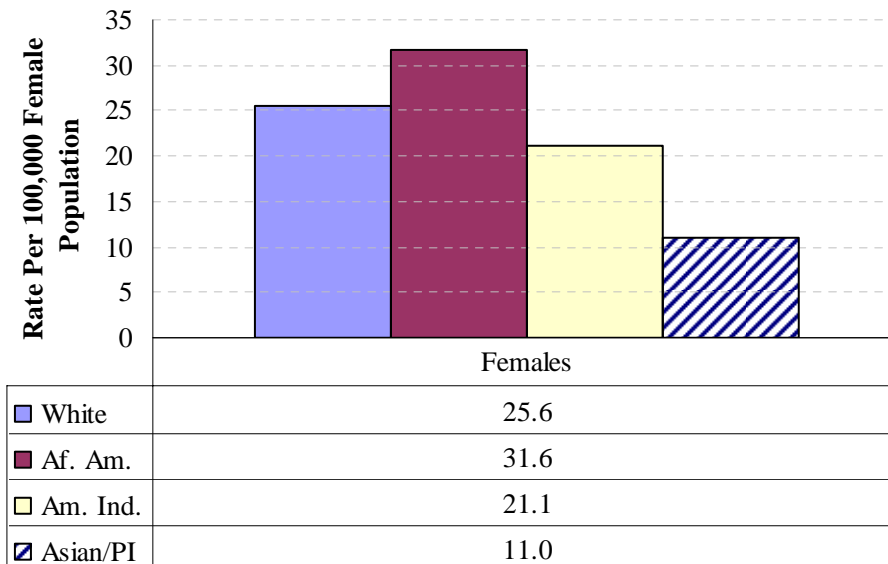
Figure 2.5. Female Breast Cancer, Age-Adjusted Incidence Rates, by Race, Wisconsin, 1998 - 2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 female population in each racial group and are age-adjusted to the 2000 U.S. standard population.

Figure 2.6. Female Breast Cancer, Age-Adjusted Mortality Rates, by Race, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 female population in each racial group and are age-adjusted to the 2000 U.S. standard population.

Table 2.3. Female Breast Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	68	99.0	76.0	129.6	26	39.2	25.2	61.4
Ashland County	63	125.2	95.3	162.7	13	24.7	12.8	44.9
Barron County	144	101.3	85.1	120.4	31	18.9	12.7	28.1
Bayfield County	52	105.2	78.5	142.5	22	45.2	28.2	73.7
Brown County	747	133.9	124.4	144.0	157	27.5	23.3	32.2
Buffalo County	48	110.0	80.5	149.8	9	19.5	8.6	42.3
Burnett County	63	113.5	86.3	150.1	20	32.0	19.4	54.8
Calumet County	116	116.6	96.3	140.4	21	20.8	12.8	32.3
Chippewa County	222	135.9	118.4	155.7	50	28.6	21.1	38.3
Clark County	136	135.5	112.9	162.0	24	21.2	13.1	33.6
Columbia County	219	146.2	127.3	167.6	49	30.6	22.5	41.3
Crawford County	83	156.0	123.7	196.6	18	29.0	16.8	50.3
Dane County	1,470	147.0	139.5	154.8	274	27.1	24.0	30.6
Dodge County	303	129.6	115.2	145.5	81	31.1	24.5	39.2
Door County	187	190.6	163.6	222.5	26	23.6	15.2	37.7
Douglas County	116	92.1	75.8	111.2	35	25.0	17.2	35.7
Dunn County	100	106.8	86.7	130.4	27	28.0	18.3	41.3
Eau Claire County	292	122.0	108.2	137.2	48	18.4	13.5	24.8
Florence County	23	162.4	102.2	258.1	5	34.0	10.9	99.0
Fond du Lac County	383	137.3	123.7	152.1	73	22.0	17.1	28.2
Forest County	47	140.2	101.9	191.8	9	26.2	11.8	55.9
Grant County	155	109.0	92.1	128.7	49	29.6	21.6	40.2
Green County	113	113.4	93.1	137.7	30	27.0	18.0	40.2
Green Lake County	68	113.9	87.7	147.4	14	22.6	12.0	41.4
Iowa County	84	135.0	107.5	168.7	19	29.9	17.9	48.5
Iron County	23	83.8	50.6	147.5	6	16.4	5.9	64.9
Jackson County	63	117.7	90.0	152.5	17	30.9	17.8	51.5
Jefferson County	245	119.6	105.0	135.7	52	23.8	17.7	31.5
Juneau County	93	123.9	99.4	153.8	26	34.2	22.1	52.1
Kenosha County	494	128.8	117.6	140.8	104	25.9	21.1	31.5
Kewaunee County	84	136.8	108.5	171.3	17	26.4	15.0	44.4
La Crosse County	479	170.8	155.6	187.1	76	25.0	19.6	31.7
Lafayette County	55	112.6	84.2	149.3	12	20.8	10.5	40.0
Langlade County	90	129.8	103.5	162.6	19	24.3	14.2	41.7
Lincoln County	145	157.9	132.7	187.4	23	23.2	14.6	36.4
Manitowoc County	304	123.3	109.6	138.5	72	25.4	19.7	32.7
Marathon County	444	128.2	116.4	140.9	92	26.0	20.9	32.0

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	173	124.2	105.9	145.5	27	16.3	10.5	25.3
Marquette County	68	138.7	106.7	180.1	12	26.1	13.2	49.9
Menominee County	10	89.6	42.6	211.5	3	26.6	5.2	137.2
Milwaukee County	3,505	136.9	132.4	141.6	780	28.2	26.2	30.3
Monroe County	153	132.7	112.2	156.2	34	28.1	19.3	40.1
Oconto County	147	144.5	121.9	171.0	32	28.5	19.4	41.7
Oneida County	203	160.4	138.7	186.1	32	24.1	16.2	36.6
Outagamie County	617	155.3	143.2	168.2	79	19.4	15.3	24.3
Ozaukee County	362	151.7	136.4	168.6	64	26.6	20.5	34.5
Pepin County	21	97.7	59.6	156.9	8	28.4	11.6	67.8
Pierce County	70	85.8	66.8	109.0	22	26.4	16.5	40.7
Polk County	104	83.7	68.2	102.5	30	23.3	15.6	34.4
Portage County	203	124.8	108.1	143.4	40	23.6	16.8	32.4
Price County	66	124.1	95.1	162.8	13	24.1	12.5	47.2
Racine County	741	145.0	134.7	155.9	134	25.0	20.9	29.7
Richland County	53	97.6	72.5	130.1	13	22.4	11.6	41.4
Rock County	550	131.6	120.7	143.2	123	28.3	23.5	33.9
Rusk County	69	138.2	106.8	178.5	6	10.9	3.9	28.7
St Croix County	138	90.2	75.6	107.0	27	16.8	11.0	24.9
Sauk County	244	152.6	133.7	173.7	56	31.3	23.5	41.5
Sawyer County	69	124.2	96.1	161.2	10	18.3	8.5	38.9
Shawano County	149	118.0	99.3	139.9	25	18.4	11.7	28.6
Sheboygan County	388	123.1	111.0	136.4	94	27.2	21.8	33.6
Taylor County	63	114.1	87.3	147.9	11	16.4	7.9	32.2
Trempealeau County	106	127.9	103.9	156.7	13	17.1	9.0	30.9
Vernon County	131	146.8	122.2	176.1	30	30.1	20.0	45.3
Vilas County	143	165.0	138.0	199.7	32	35.2	23.6	55.8
Walworth County	298	118.9	105.6	133.5	66	25.3	19.5	32.5
Washburn County	64	116.2	88.8	152.8	12	19.5	9.9	39.8
Washington County	436	141.9	128.9	156.1	64	20.4	15.7	26.3
Waukesha County	1,537	152.0	144.4	159.8	292	28.1	25.0	31.6
Waupaca County	229	146.4	127.5	167.8	39	22.4	15.7	31.6
Waushara County	94	117.1	94.0	146.5	23	27.1	16.8	44.4
Winnebago County	587	140.5	129.2	152.5	113	24.7	20.3	30.0
Wood County	391	171.7	154.8	190.2	64	25.2	19.2	32.7

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 female population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 3: Cervical Cancer

Incidence

During 1998-2002, invasive cervical cancer was the 13th most frequently diagnosed cancer among Wisconsin women (Figure 1.8), and the third most frequent cancer among women aged 25-44 (Table 1.4). Each year, approximately 250 women were diagnosed with this disease (Table 3.1).

Cervical cancer incidence rates vary between different racial groups. Asian/Pacific Islander women had the highest incidence rate (19.7 per 100,000), followed by African American women (14.8 per 100,000), American Indian women (13.7 per 100,000), and white women (8.6 per 100,000) (Figure 3.5).

During 1998-2002, half of all cervical cancer cases (50%) were diagnosed at an early (localized) stage (Figure 3.4).

Mortality

Cervical cancer was the 15th most frequent cause of cancer mortality among Wisconsin women (Figure 1.8) and the fifth most frequent cause of cancer mortality among Wisconsin women aged 25-44 (Table 1.5). An average of 56 women died of cervical cancer each year from 1998 through 2002 (Table 3.2).

Wisconsin's cervical cancer mortality rate was lower than the national rate each year during the 1998-2002 period (Figure 3.2).

Age-adjusted cervical cancer incidence in Wisconsin decreased 7 percent annually from 1998 through 2002 (Table 3.2).

Although cervical cancer mortality rates are low in all racial groups, differences in mortality parallel differences in incidence: Asian/Pacific Islanders have the highest mortality rate (3.4 per 100,000) and African Americans have the second highest (2.4 per 100,000) (Figure 3.6).

Table 3.1. Cervical Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998-2002

Year of Diagnosis	Number of Cases	Age-Adj. Rate	APC
Annual Average 1998-2002	252	9.2	-8.5%
1998	271	9.9	N/A
1999	276	10.2	N/A
2000	305	11.2	N/A
2001	208	7.5	N/A
2002	199	7.2	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

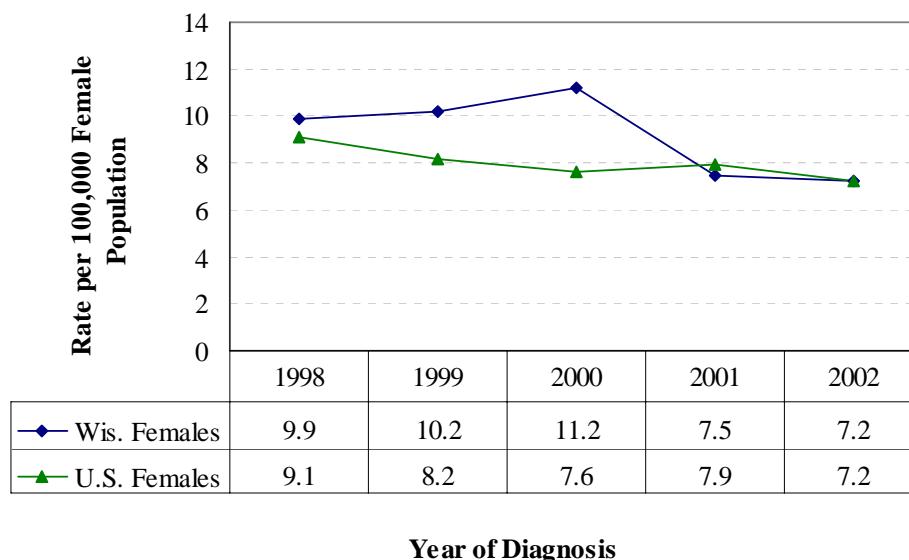
Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Table 3.2. Cervical Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998-2002

Year of Death	Number of Deaths	Age-Adj. Rate	APC
Annual Average 1998-2002	56	1.9	-7.1%
1998	59	2.1	N/A
1999	67	2.3	N/A
2000	54	1.9	N/A
2001	54	1.8	N/A
2002	48	1.7	N/A

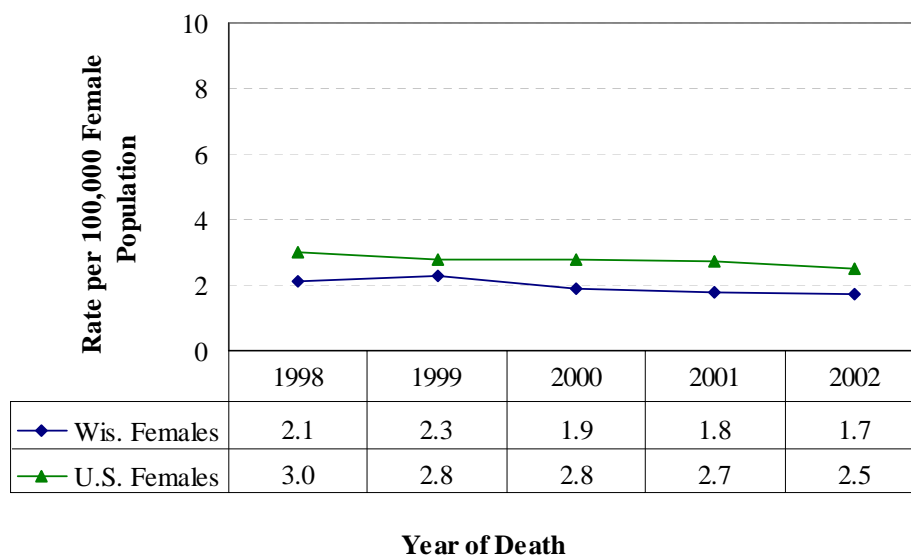
Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Figure 3.1. Cervical Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 1998 - 2002

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

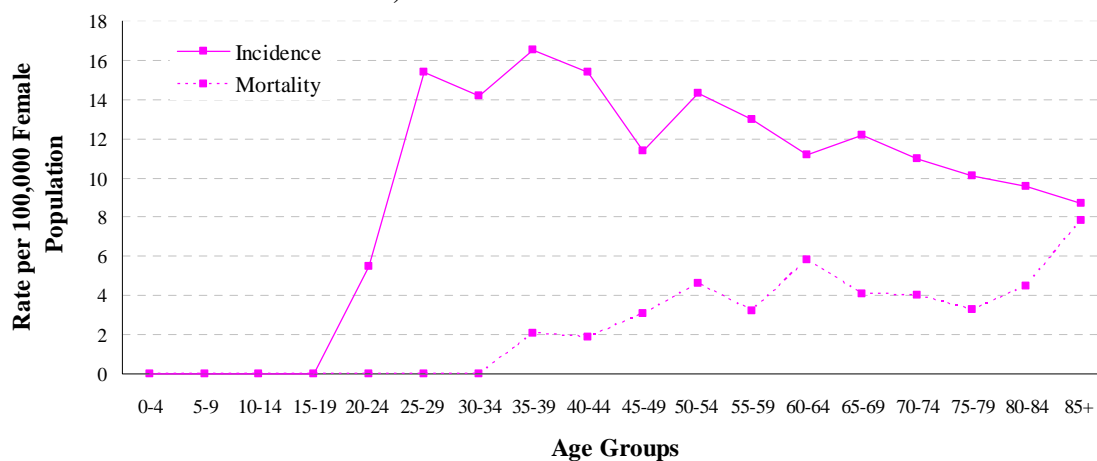
Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

Figure 3.2. Cervical Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 1998 - 2002

Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

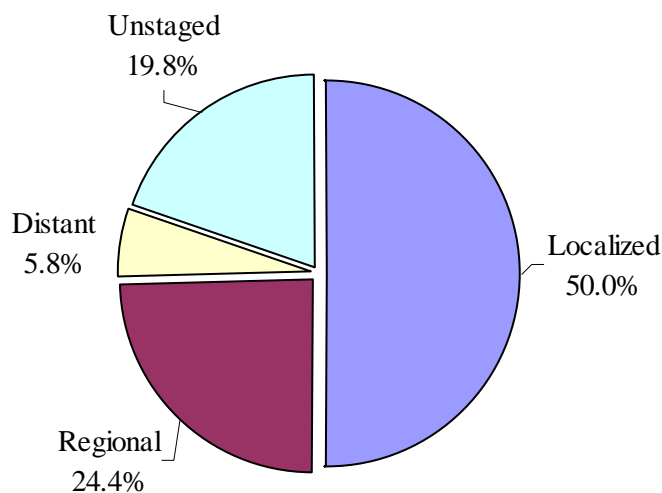
Figure 3.3. Cervical Cancer, Age-Specific Incidence and Mortality Rates, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 female population (1998-2002) for each age group.

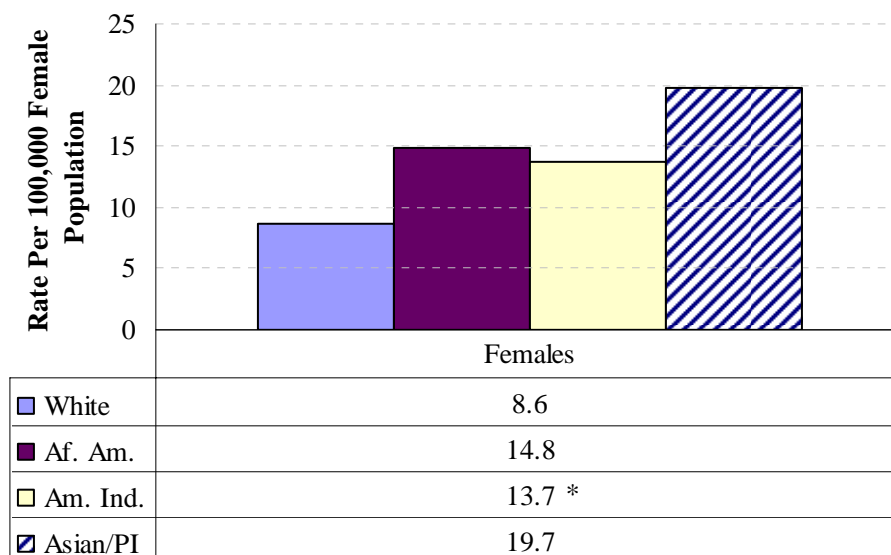
Figure 3.4. Cervical Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 3.5. Cervical Cancer, Age-Adjusted Incidence Rates, by Race, Wisconsin, 1998 - 2002

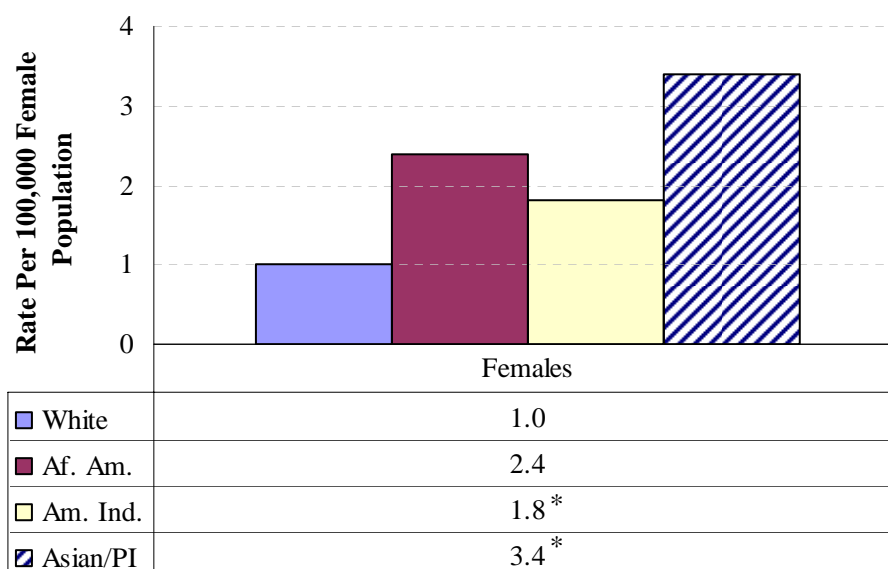


Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 female population in each racial group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Figure 3.6. Cervical Cancer, Age-Adjusted Mortality Rates, by Race, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 female population in each racial group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 3.3. Cervical Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	8	14.6	6.1	32.8	4	2.6	0.7	9.6
Ashland County	3	6.9	1.4	22.1	2	2.5	0.3	9.6
Barron County	9	8.4	3.8	16.6	4	1.7	0.5	4.8
Bayfield County	2	3.9	0.5	22.9	1	1.0	0.0	10.1
Brown County	47	8.1	6.0	10.8	11	1.0	0.5	1.9
Buffalo County	5	15.1	4.6	38.9	2	2.2	0.3	10.4
Burnett County	7	21.4	8.4	47.0	0	0.0	0.0	7.4
Calumet County	4	4.0	1.1	10.9	2	1.1	0.1	4.1
Chippewa County	9	6.5	3.0	12.6	2	0.7	0.1	2.7
Clark County	3	4.4	0.9	13.4	1	0.6	0.0	3.9
Columbia County	11	9.2	4.5	17.0	3	1.0	0.2	3.3
Crawford County	4	9.0	2.4	26.7	1	1.1	0.0	7.8
Dane County	116	10.1	8.3	12.2	14	0.7	0.4	1.2
Dodge County	12	6.0	3.1	10.8	0	0.0	0.0	1.1
Door County	8	10.2	4.0	23.3	4	2.2	0.6	7.1
Douglas County	8	7.3	3.2	14.9	2	0.7	0.1	3.1
Dunn County	4	4.7	1.3	12.4	1	0.2	0.0	2.6
Eau Claire County	7	3.2	1.3	6.7	2	0.5	0.1	1.7
Florence County	1	7.9	0.2	65.9	0	0.0	0.0	25.4
Fond du Lac County	23	9.2	5.8	14.0	3	0.6	0.1	1.9
Forest County	3	7.4	1.5	30.6	0	0.0	0.0	10.4
Grant County	15	11.5	6.3	19.9	3	1.1	0.2	3.7
Green County	10	11.0	5.2	21.6	3	1.8	0.4	6.0
Green Lake County	2	4.8	0.6	19.5	1	1.0	0.0	7.1
Iowa County	4	7.3	1.9	21.0	1	1.1	0.0	6.4
Iron County	3	13.2	2.5	63.9	1	1.6	0.0	27.1
Jackson County	3	5.0	1.0	17.6	2	1.7	0.2	7.7
Jefferson County	23	12.0	7.6	18.2	4	1.1	0.3	2.8
Juneau County	15	23.9	13.2	40.9	3	2.2	0.4	7.4
Kenosha County	56	14.8	11.2	19.3	10	1.4	0.7	2.6
Kewaunee County	2	4.4	0.5	16.7	1	0.8	0.0	5.9
La Crosse County	17	6.4	3.7	10.4	3	0.6	0.1	1.8
Lafayette County	3	9.2	1.9	28.0	0	0.0	0.0	6.3
Langlade County	4	7.4	2.0	21.7	1	0.7	0.0	6.1
Lincoln County	5	6.4	2.0	16.3	3	1.5	0.3	5.4
Manitowoc County	13	5.9	3.1	10.6	6	1.3	0.5	3.0
Marathon County	18	5.7	3.4	9.1	6	0.9	0.3	2.1

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	7	6.6	2.6	14.6	3	1.0	0.2	3.8
Marquette County	4	11.0	3.0	31.7	1	1.3	0.0	9.3
Menominee County	2	21.6	2.6	132.9	2	11.3	1.4	79.4
Milwaukee County	265	10.9	9.6	12.3	58	1.3	1.0	1.7
Monroe County	4	3.9	1.1	10.6	3	1.5	0.3	4.7
Oconto County	9	8.8	4.0	18.3	5	2.4	0.8	6.4
Oneida County	15	13.8	7.6	25.0	3	1.4	0.3	5.2
Outagamie County	32	7.9	5.4	11.2	6	0.8	0.3	1.8
Ozaukee County	18	8.0	4.7	13.2	5	1.2	0.4	3.0
Pepin County	2	9.2	0.8	45.2	1	2.4	0.1	18.2
Pierce County	11	12.6	6.3	23.4	0	0.0	0.0	2.8
Polk County	20	18.2	11.0	29.2	6	2.6	0.9	6.1
Portage County	7	4.4	1.8	9.3	1	0.3	0.0	1.9
Price County	3	6.1	1.2	25.0	0	0.0	0.0	8.1
Racine County	41	8.6	6.1	11.7	6	0.6	0.2	1.4
Richland County	5	12.2	3.8	30.1	2	2.3	0.3	9.2
Rock County	43	10.8	7.8	14.6	9	1.2	0.5	2.2
Rusk County	1	2.9	0.1	19.1	0	0.0	0.0	6.9
St Croix County	17	10.6	6.2	17.2	4	1.2	0.3	3.5
Sauk County	16	11.4	6.5	19.1	1	0.3	0.0	2.1
Sawyer County	6	13.7	4.9	34.3	2	2.3	0.2	10.5
Shawano County	7	7.1	2.8	15.5	4	1.9	0.5	5.4
Sheboygan County	26	8.9	5.8	13.2	5	0.9	0.3	2.1
Taylor County	2	3.9	0.5	16.3	0	0.0	0.0	4.7
Trempealeau County	7	10.3	4.1	22.5	2	1.4	0.2	5.9
Vernon County	6	6.6	2.3	17.0	1	0.9	0.0	5.5
Vilas County	8	15.2	5.8	36.0	0	0.0	0.0	6.3
Walworth County	21	8.7	5.4	13.5	10	2.1	1.0	3.9
Washburn County	3	7.2	1.3	26.1	0	0.0	0.0	7.4
Washington County	23	7.8	4.9	11.9	5	0.8	0.3	2.1
Waukesha County	65	6.8	5.2	8.8	11	0.6	0.3	1.1
Waupaca County	17	12.7	7.3	21.0	3	1.0	0.2	3.3
Waushara County	6	8.7	3.1	22.8	1	0.6	0.0	5.8
Winnebago County	29	7.4	4.9	10.7	10	1.3	0.6	2.4
Wood County	24	13.0	8.3	19.7	5	1.1	0.3	2.8

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 female population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 4: Cancers of the Colon and Rectum

Incidence

During 1998-2002, cancer of the colon and rectum (colorectal cancer) was the third most commonly diagnosed cancer for both males and females in Wisconsin (Figures 1.7 and 1.8).

Incidence increases dramatically with age for both sexes. Colorectal cancer was over 19 times more common among men aged 65-69 compared to men aged 40-44, and 13 times more common among women aged 65-69 compared to women aged 40 to 44 (Figure 4.3).

Approximately 36 percent of colon and rectum cancers were diagnosed at the early (localized) stage; more than half (55%) were diagnosed at a regional or distant stage and 9 percent were unstaged (Figure 4.4).

Colorectal cancer incidence in Wisconsin declined by 3.8 percent annually over the years 1998-2002 (Table 4.1).

Mortality

Cancer of the colon and rectum was the third leading cause of cancer-related mortality among both men and women in Wisconsin during 1998-2002 (Figures 1.7 and 1.8). It resulted in more than 1,100 deaths annually and accounted for 10 percent of all cancer-related mortality.

Death rates from colon and rectum cancers declined during the 1998-2002 period by 2.9 percent for males and 2.6 percent for females (Table 4.2).

Colon and rectum cancer rates vary by race, with American Indians having the highest incidence rate (Figure 4.5) and African Americans having the highest mortality rate (Figure 4.6).

Colorectal cancer mortality during the years 1998-2002 showed an average annual decrease of almost 3 percent (Table 4.2).

Table 4.1. Colorectal Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	1,605	67.5	-3.8%	1,525	47.5	-3.6%	3,131	56.3	-3.8%
1998	1,622	70.0	N/A	1,616	51.0	N/A	3,238	59.5	N/A
1999	1,708	73.0	N/A	1,546	48.6	N/A	3,254	59.3	N/A
2000	1,651	69.5	N/A	1,555	48.6	N/A	3,206	57.7	N/A
2001	1,532	63.7	N/A	1,475	45.7	N/A	3,007	53.5	N/A
2002	1,513	61.7	N/A	1,435	43.7	N/A	2,948	51.7	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

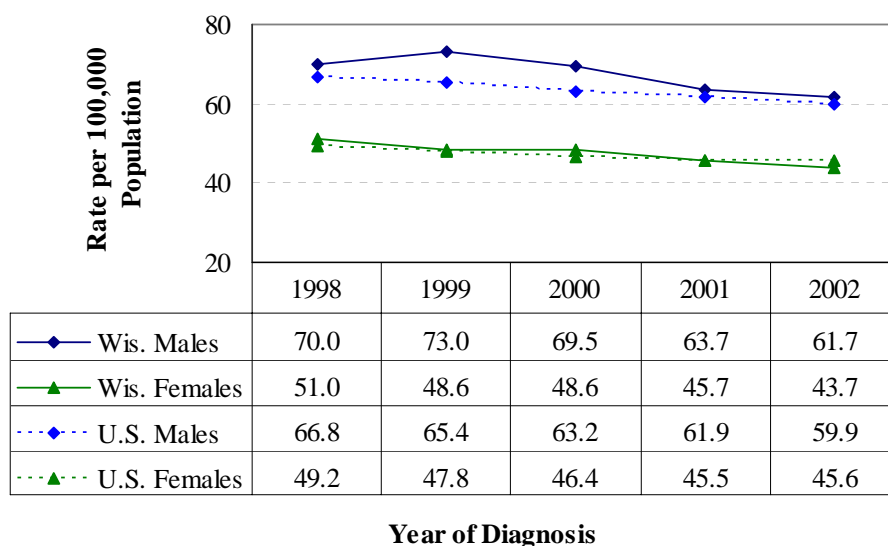
Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Table 4.2. Colorectal Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	571	24.9	-2.9%	563	16.6	-2.6%	1,134	20.1	-2.9%
1998	559	25.2	N/A	574	17.2	N/A	1,133	20.5	N/A
1999	605	26.6	N/A	568	17.0	N/A	1,173	21.1	N/A
2000	580	25.4	N/A	594	17.3	N/A	1,174	20.7	N/A
2001	582	25.1	N/A	544	15.9	N/A	1,126	19.6	N/A
2002	529	22.3	N/A	535	15.5	N/A	1,064	18.4	N/A

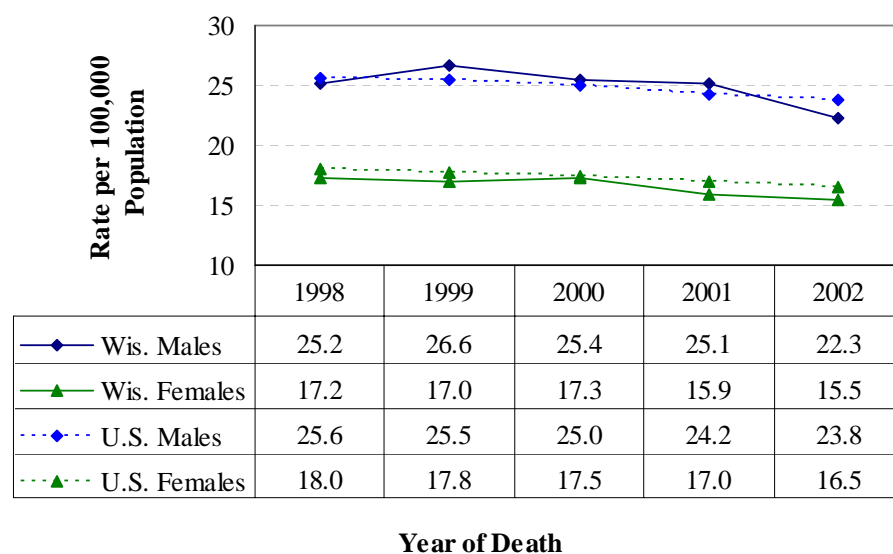
Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Figure 4.1. Colorectal Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

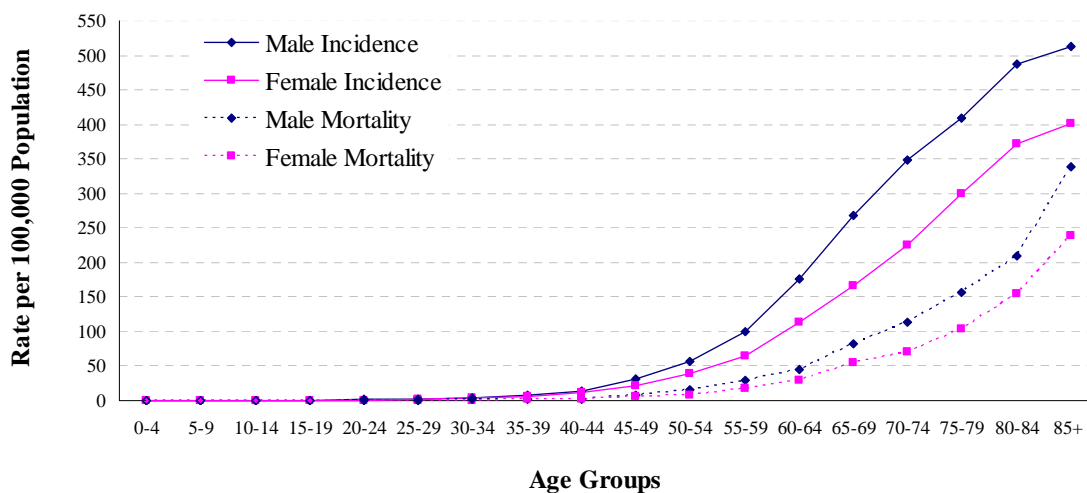
Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

Figure 4.2. Colorectal Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 1998 - 2002

Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

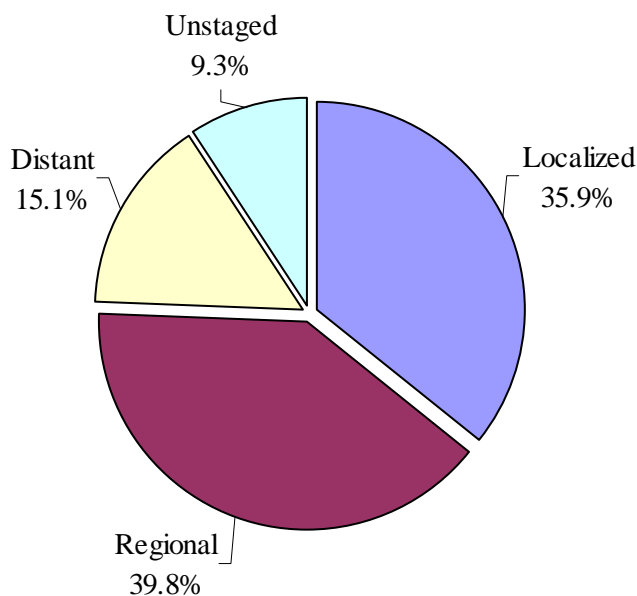
Figure 4.3. Colorectal Cancer, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

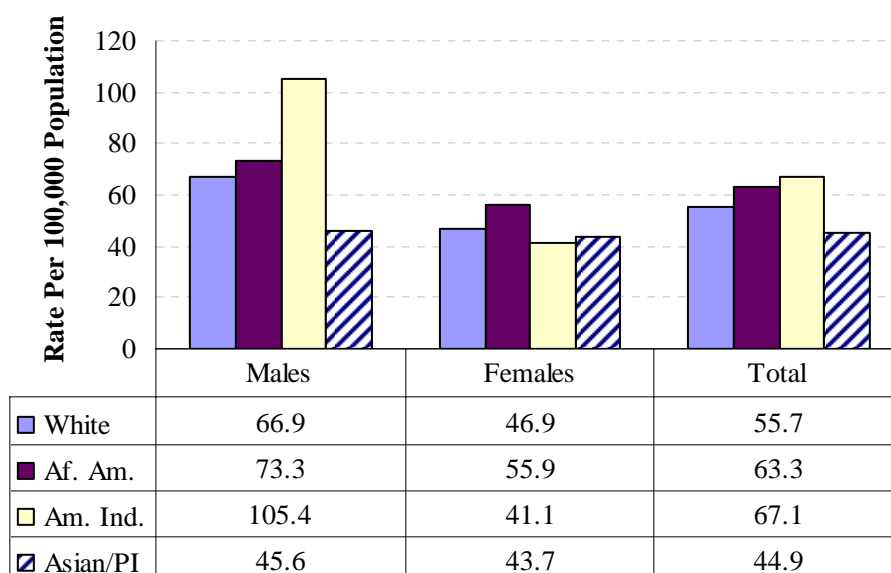
Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

Figure 4.4. Colorectal Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



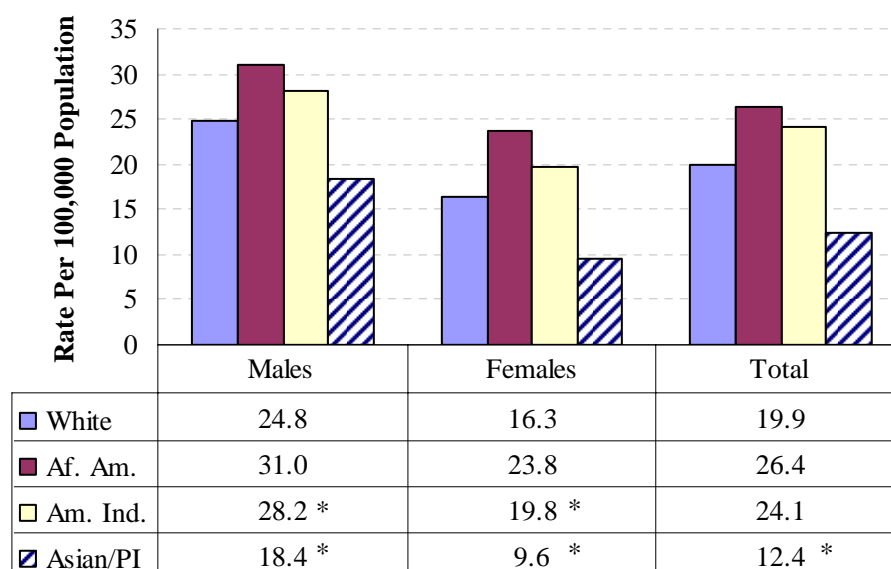
Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 4.5. Colorectal Cancer, Age-Adjusted Incidence Rates, by Race and Sex, Wisconsin, 1998 - 2002

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group, and are age-adjusted to the 2000 U.S. standard population.

Figure 4.6. Colorectal Cancer, Age-Adjusted Mortality Rates, by Race and Sex, Wisconsin, 1998 - 2002

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group, and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 4.3. Colorectal Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	53	36.0	26.8	48.7	28	18.5	12.2	28.7
Ashland County	52	51.2	38.0	68.1	19	18.2	10.8	29.4
Barron County	146	53.9	45.5	63.8	50	17.1	12.7	23.0
Bayfield County	59	61.0	46.4	80.7	23	23.5	14.9	37.7
Brown County	539	53.9	49.5	58.7	189	19.0	16.3	21.9
Buffalo County	52	59.0	44.0	78.6	19	21.5	12.9	35.1
Burnett County	56	48.5	36.4	64.9	28	24.5	16.2	37.4
Calumet County	107	60.3	49.4	73.0	31	17.6	11.9	25.1
Chippewa County	174	55.8	47.8	64.9	65	19.9	15.4	25.6
Clark County	109	53.3	43.6	64.9	44	21.1	15.2	28.8
Columbia County	186	63.3	54.5	73.3	57	18.9	14.3	24.7
Crawford County	54	51.1	38.3	67.8	19	17.8	10.7	29.1
Dane County	882	51.4	48.0	54.9	304	17.9	16.0	20.1
Dodge County	285	61.3	54.4	69.0	110	22.7	18.6	27.5
Door County	126	63.8	53.0	76.9	42	20.7	14.9	29.1
Douglas County	116	46.7	38.5	56.3	66	25.5	19.7	32.8
Dunn County	101	55.2	44.9	67.2	26	13.9	9.0	20.5
Eau Claire County	233	52.2	45.7	59.4	102	22.6	18.4	27.4
Florence County	7	19.9	8.0	50.2	6	16.0	5.9	45.0
Fond du Lac County	360	65.9	59.3	73.2	126	22.2	18.5	26.6
Forest County	45	61.2	44.5	84.2	13	17.3	9.2	32.4
Grant County	134	46.0	38.5	54.8	62	20.7	15.8	26.9
Green County	102	54.1	44.1	66.2	48	24.8	18.3	33.4
Green Lake County	62	45.9	35.0	60.2	27	18.8	12.3	28.8
Iowa County	65	55.1	42.5	70.8	35	29.4	20.5	41.5
Iron County	23	39.7	25.0	70.4	8	12.9	5.5	39.1
Jackson County	62	56.7	43.4	73.4	33	29.1	20.0	41.7
Jefferson County	227	59.6	52.1	67.9	88	22.9	18.3	28.3
Juneau County	97	63.4	51.4	78.1	44	27.6	20.0	37.8
Kenosha County	378	54.6	49.3	60.5	132	19.1	16.0	22.6
Kewaunee County	80	68.2	54.0	85.6	21	18.3	11.3	28.6
La Crosse County	341	64.2	57.6	71.5	113	20.7	17.0	25.0
Lafayette County	52	53.4	39.8	71.1	24	23.7	15.2	36.4
Langlade County	69	46.7	36.2	60.4	28	17.1	11.3	26.1
Lincoln County	139	75.1	63.1	89.3	32	16.6	11.3	24.1
Manitowoc County	253	50.2	44.2	57.0	90	17.6	14.1	21.8
Marathon County	329	50.4	45.1	56.2	118	17.8	14.8	21.4

Chapter 4: Cancers of the Colon and Rectum

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	173	59.3	50.7	69.3	61	20.2	15.4	26.4
Marquette County	50	46.5	34.3	63.0	19	19.1	11.4	31.4
Menominee County	17	84.4	47.9	164.4	8	63.0	23.6	152.8
Milwaukee County	2,662	56.8	54.6	59.0	1,031	21.6	20.3	22.9
Monroe County	132	59.8	50.0	71.1	40	17.7	12.6	24.4
Oconto County	120	56.8	47.1	68.4	48	22.6	16.7	30.5
Oneida County	159	61.5	52.2	72.6	50	19.3	14.3	26.3
Outagamie County	478	65.8	60.0	72.0	157	21.6	18.4	25.3
Ozaukee County	238	55.6	48.7	63.2	85	20.1	16.1	25.1
Pepin County	37	82.4	57.6	116.7	15	30.8	17.0	54.7
Pierce County	58	39.3	29.8	50.9	29	19.9	13.3	28.8
Polk County	89	36.4	29.2	45.1	39	15.4	11.0	21.6
Portage County	158	52.4	44.5	61.2	47	15.7	11.6	21.0
Price County	63	58.9	45.1	77.4	20	16.8	10.2	28.6
Racine County	529	56.6	51.9	61.7	179	19.2	16.5	22.2
Richland County	50	43.1	31.9	57.9	20	16.0	9.7	25.9
Rock County	439	56.8	51.6	62.4	170	21.9	18.7	25.5
Rusk County	50	49.6	36.7	66.9	13	11.7	6.2	22.0
St Croix County	124	46.3	38.4	55.4	65	24.3	18.7	31.1
Sauk County	199	63.7	55.1	73.4	49	15.3	11.3	20.5
Sawyer County	70	63.9	49.7	82.4	28	24.9	16.5	37.7
Shawano County	152	59.1	50.0	69.7	58	21.4	16.3	28.2
Sheboygan County	387	63.0	56.8	69.7	139	21.7	18.2	25.7
Taylor County	53	46.8	34.9	61.8	19	16.4	9.8	26.4
Trempealeau County	145	82.4	69.4	97.8	55	29.2	21.8	38.8
Vernon County	129	71.4	59.5	85.6	47	24.6	18.0	33.5
Vilas County	94	55.5	44.6	69.9	37	22.0	15.3	32.3
Walworth County	282	59.0	52.3	66.4	98	20.0	16.3	24.5
Washburn County	62	55.8	42.7	73.2	37	31.7	22.3	45.6
Washington County	293	52.7	46.8	59.2	105	19.3	15.8	23.4
Waukesha County	993	55.3	51.9	58.9	313	17.7	15.8	19.8
Waupaca County	171	51.7	44.2	60.5	59	15.7	11.9	20.7
Waushara County	88	53.4	42.7	67.0	37	23.3	16.3	33.3
Winnebago County	491	62.2	56.8	68.0	157	19.5	16.5	22.8
Wood County	263	58.4	51.5	66.1	66	14.3	11.0	18.4

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 5: Uterine Cancer

Incidence

During 1998-2002, uterine cancer (cancer of the uterus) was the fourth most common cancer diagnosed in Wisconsin women (Figure 1.8). Each year over 800 women were diagnosed with this disease (Table 5.1).

Generally, uterine cancer incidence increases with age. The rate increased sharply beginning at ages 40-44 and peaked at ages 70-74, with a decline in the older ages (Figure 5.3).

During 1998-2002, 72 percent of all uterine cancer cases in Wisconsin were diagnosed at the local stage, and 22 percent at the regional and distant stage (Figure 5.4).

The incidence of uterine cancer was slightly higher in Wisconsin than nationally each year (Figure 5.1).

Mortality

Uterine cancer was the eighth most frequent cause of cancer death for Wisconsin women (Figure 1.8). Approximately 140 women died of uterine cancer each year from 1998 through 2002 (Table 5.2).

African-American women had the highest mortality rate from uterine cancer (3.2 per 100,000) and Asian/Pacific Islanders had the lowest (0.9 per 100,000) (Figure 5.5).

Uterine cancer mortality increased an average of 3.5 percent annually during 1998-2002 (Table 5.2).

Table 5.1. Uterine Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998 - 2002

Year of Diagnosis	Number of Cases	Age-Adj. Rate	APC
Annual Average 1998-2002	805	27.5	-0.1
1998	788	27.5	N/A
1999	799	27.6	N/A
2000	800	27.1	N/A
2001	819	27.5	N/A
2002	821	27.4	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

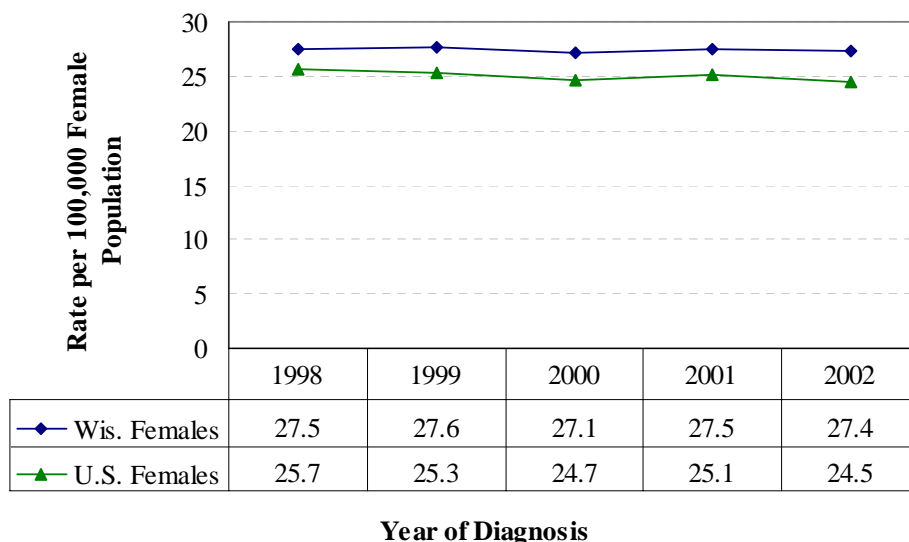
Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Table 5.2. Uterine Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998-2002

Year of Death	Number of Deaths	Age-Adj. Rate	APC
Annual Average 1998-2002	143	4.5	3.5%
1998	127	4.1	N/A
1999	141	4.3	N/A
2000	145	4.6	N/A
2001	150	4.6	N/A
2002	152	4.7	N/A

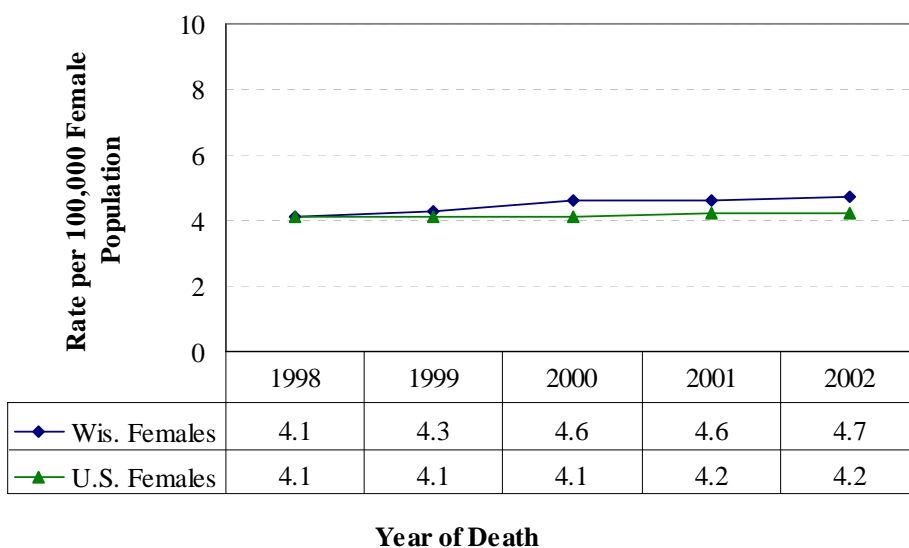
Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Figure 5.1. Uterine Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 1998 - 2002

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

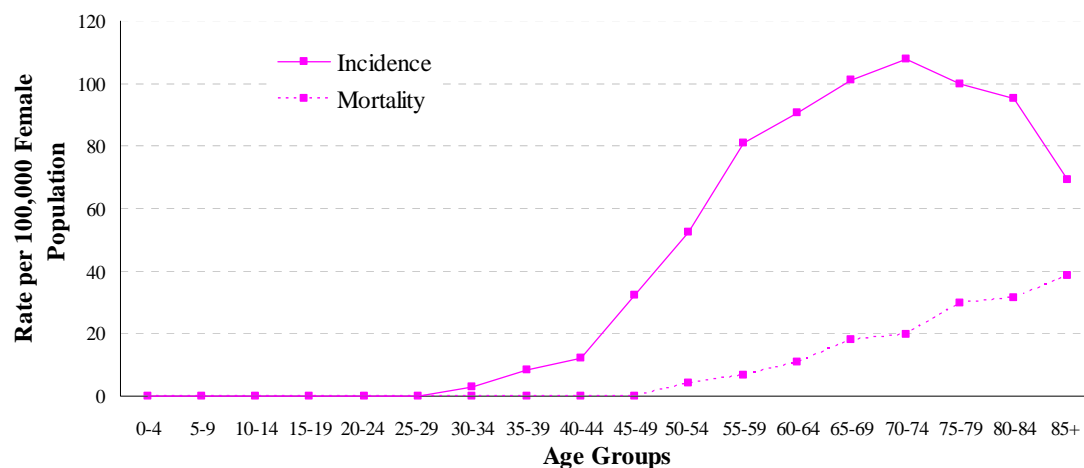
Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

Figure 5.2. Uterine Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 1998 - 2002

Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

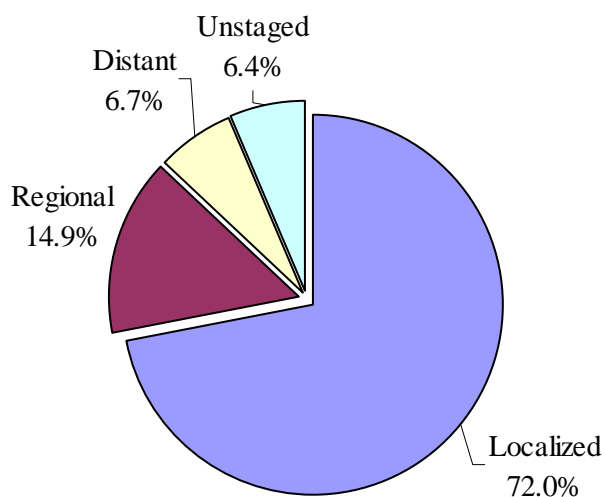
Figure 5.3. Uterine Cancer, Age-Specific Incidence and Mortality Rates, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 female population (1998-2002) for each age group.

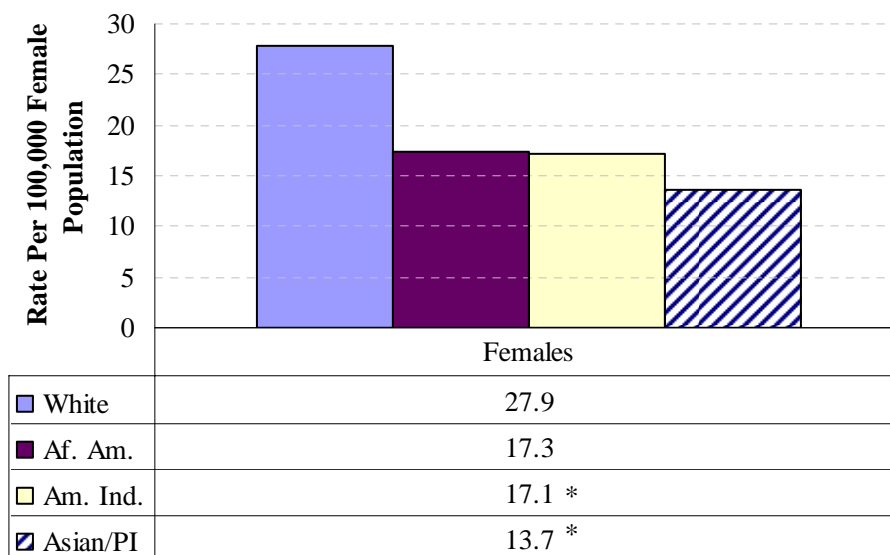
Figure 5.4. Uterine Cancer, Stage of Disease at Diagnosis, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 5.5. Uterine Cancer, Age-Adjusted Incidence Rates, by Race, Wisconsin, 1998 - 2002

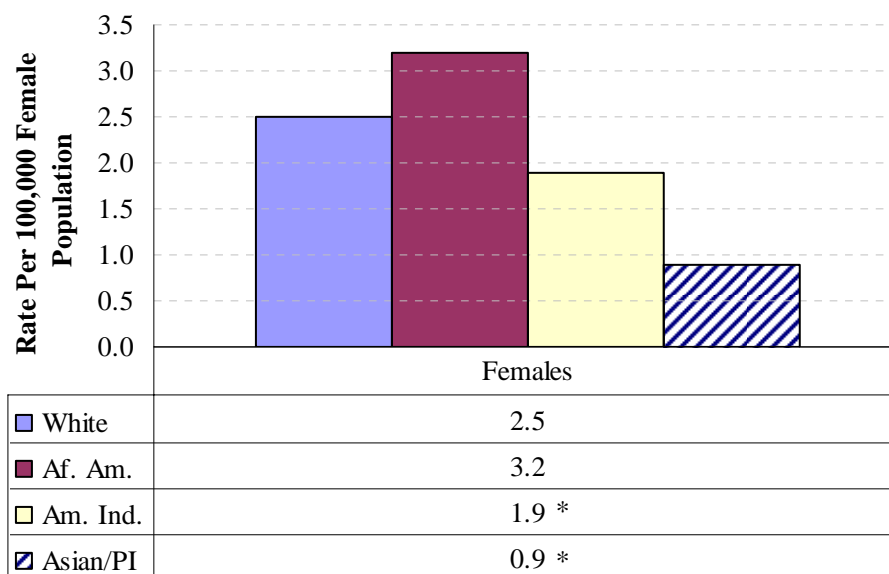


Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 female population in each racial group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 5.6. Uterine Cancer, Age-Adjusted Mortality Rates, by Race, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 female population in each racial group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 5.3. Uterine Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	11	14.6	7.1	31.2	4	2.9	0.8	10.0
Ashland County	13	25.0	13.0	45.2	2	1.5	0.2	7.5
Barron County	35	24.9	17.2	35.7	2	0.6	0.1	3.0
Bayfield County	14	27.6	15.1	52.2	5	5.3	1.7	15.5
Brown County	168	30.6	26.1	35.6	32	3.2	2.2	4.5
Buffalo County	11	24.3	12.0	48.1	1	1.0	0.0	8.6
Burnett County	5	8.4	2.6	26.5	2	1.6	0.2	9.3
Calumet County	21	21.8	13.5	33.7	6	3.5	1.3	7.7
Chippewa County	46	27.4	20.0	37.1	10	2.9	1.4	5.6
Clark County	22	22.3	13.8	35.0	4	1.9	0.5	5.5
Columbia County	62	40.4	30.8	52.6	12	4.0	2.1	7.4
Crawford County	11	20.2	10.1	40.0	2	1.8	0.2	8.6
Dane County	258	26.3	23.1	29.7	45	2.7	2.0	3.6
Dodge County	76	33.8	26.6	42.7	17	3.5	2.0	5.8
Door County	30	28.8	19.2	44.0	3	1.5	0.3	6.0
Douglas County	24	19.8	12.7	30.1	7	2.7	1.1	5.9
Dunn County	18	18.4	10.8	29.8	10	5.3	2.5	9.9
Eau Claire County	55	23.2	17.4	30.4	9	1.9	0.9	3.8
Florence County	3	15.7	3.2	73.4	1	2.6	0.1	28.4
Fond du Lac County	77	27.8	21.9	35.1	18	3.2	1.9	5.2
Forest County	7	24.4	9.7	55.3	0	0.0	0.0	10.4
Grant County	38	25.2	17.7	35.6	8	2.6	1.1	5.6
Green County	34	34.0	23.5	48.8	7	3.8	1.5	8.4
Green Lake County	17	30.7	17.7	51.9	2	1.5	0.2	7.5
Iowa County	13	20.2	10.7	36.6	4	3.3	0.9	9.3
Iron County	10	39.6	17.8	95.4	2	3.7	0.4	29.5
Jackson County	20	37.9	22.9	60.3	1	1.0	0.0	6.7
Jefferson County	47	23.1	16.9	30.9	9	2.4	1.1	4.6
Juneau County	25	30.0	19.2	46.4	4	2.8	0.8	8.2
Kenosha County	106	28.2	23.1	34.2	15	2.2	1.2	3.6
Kewaunee County	11	19.5	9.6	36.4	1	0.8	0.0	5.9
La Crosse County	71	25.8	20.1	32.8	9	1.7	0.8	3.4
Lafayette County	10	20.2	9.5	40.4	0	0.0	0.0	6.3
Langlade County	17	24.2	13.9	41.8	3	2.0	0.4	7.9
Lincoln County	36	38.9	26.9	55.4	8	4.1	1.7	8.9
Manitowoc County	81	32.1	25.3	40.3	13	2.5	1.3	4.5
Marathon County	82	23.9	19.0	29.9	9	1.3	0.6	2.6

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	48	33.1	24.2	45.1	10	3.4	1.6	7.0
Marquette County	14	26.7	14.3	49.5	3	3.0	0.6	11.2
Menominee County	1	11.3	0.3	121.1	0	0.0	0.0	67.3
Milwaukee County	726	28.8	26.7	31.0	145	3.1	2.6	3.6
Monroe County	35	30.9	21.4	43.6	5	2.1	0.7	5.4
Oconto County	29	27.8	18.5	41.1	6	2.7	1.0	6.7
Oneida County	30	23.5	15.8	35.8	4	1.7	0.4	5.5
Outagamie County	123	31.7	26.3	37.9	16	2.2	1.3	3.6
Ozaukee County	51	21.4	15.9	28.5	11	2.6	1.3	4.9
Pepin County	5	16.7	5.4	51.5	1	2.1	0.1	17.4
Pierce County	9	11.4	5.2	22.3	0	0.0	0.0	2.8
Polk County	13	10.4	5.5	19.0	1	0.4	0.0	3.2
Portage County	43	27.1	19.6	36.6	7	2.3	0.9	4.8
Price County	9	16.1	7.2	37.1	0	0.0	0.0	8.1
Racine County	114	22.5	18.5	27.1	24	2.6	1.6	3.8
Richland County	17	30.1	17.3	50.7	2	1.6	0.2	7.6
Rock County	117	27.8	22.9	33.4	19	2.5	1.5	3.9
Rusk County	12	26.7	13.6	50.1	2	2.0	0.2	9.8
St Croix County	33	22.8	15.7	32.3	4	1.3	0.4	3.6
Sauk County	41	26.5	19.0	36.5	12	3.9	2.0	7.0
Sawyer County	6	11.4	4.1	30.4	1	0.9	0.0	8.4
Shawano County	41	32.6	23.2	45.5	3	1.1	0.2	3.9
Sheboygan County	98	31.6	25.6	38.7	12	1.9	1.0	3.5
Taylor County	18	31.4	18.2	51.9	7	6.1	2.4	13.4
Trempealeau County	35	45.2	31.1	64.4	4	2.5	0.7	7.4
Vernon County	28	32.4	21.2	49.0	2	1.3	0.2	5.7
Vilas County	27	33.3	21.3	54.6	3	1.8	0.4	8.4
Walworth County	65	25.5	19.6	32.7	17	3.6	2.1	5.8
Washburn County	10	18.9	8.9	39.9	3	2.9	0.6	11.3
Washington County	82	26.4	21.0	33.0	10	1.8	0.9	3.4
Waukesha County	300	29.8	26.5	33.4	48	2.7	2.0	3.6
Waupaca County	46	30.0	21.8	40.8	8	2.3	1.0	5.0
Waushara County	19	23.5	13.9	40.4	4	2.7	0.7	8.6
Winnebago County	117	27.5	22.7	33.1	26	3.3	2.1	4.8
Wood County	80	36.1	28.5	45.3	8	1.7	0.7	3.6

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 female population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 6: Cancer of the Esophagus

Incidence

The 1998-2002 average annual incidence rate for cancer of the esophagus among Wisconsin males (10.6 per 100,000) was over four times the rate among females (2.3 per 100,000) (Table 6.1). National rates show a similar male-female disparity ratio for this cancer, approximately 4 to 1 (Figure 6.1).

Twenty-seven percent of all esophageal cancer cases were diagnosed at the early or local stage, and 57 percent at the regional or distant stage (Figure 6.4).

For males, the Wisconsin incidence rate was higher than the national average incidence rate; among females, the Wisconsin rate was similar to the national average rate (Figure 6.1).

Mortality

For the five-year period, the male mortality rate for esophageal cancer (9.1) was five times the female rate (1.8), which is consistent with national findings (Figure 6.2).

Esophageal cancer mortality rates varied by race. African Americans had the highest mortality rate among both males and females (Figure 6.6).

Mortality rates increased an average of 1.9 percent annually among males and an average of 0.6 percent annually among females during the 1998-2002 period (Table 6.2).

Table 6.1. Esophageal Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	257	10.6	1.7%	72	2.3	2.8%	329	6.0	2.0%
1998	218	9.3	N/A	69	2.1	N/A	287	5.3	N/A
1999	258	10.9	N/A	76	2.4	N/A	334	6.2	N/A
2000	282	11.5	N/A	67	2.1	N/A	349	6.4	N/A
2001	275	11.1	N/A	65	2.0	N/A	340	6.1	N/A
2002	253	10.2	N/A	83	2.6	N/A	336	6.0	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

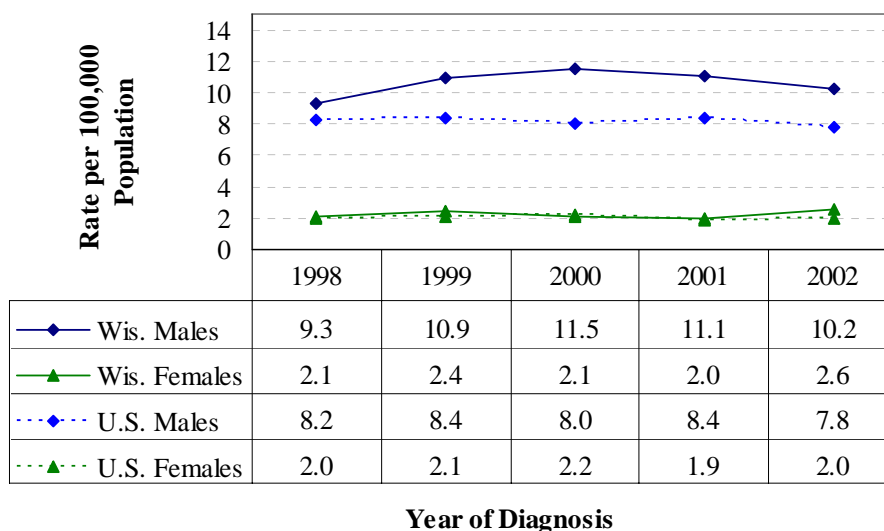
Table 6.2. Esophageal Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	216	9.1	1.9%	59	1.8	0.6%	276	5.0	2.1%
1998	208	9.0	N/A	65	2.0	N/A	273	5.0	N/A
1999	213	9.1	N/A	53	1.6	N/A	266	4.9	N/A
2000	181	7.6	N/A	55	1.6	N/A	236	4.3	N/A
2001	250	10.3	N/A	59	1.8	N/A	309	5.5	N/A
2002	230	9.3	N/A	65	2.0	N/A	295	5.2	N/A

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

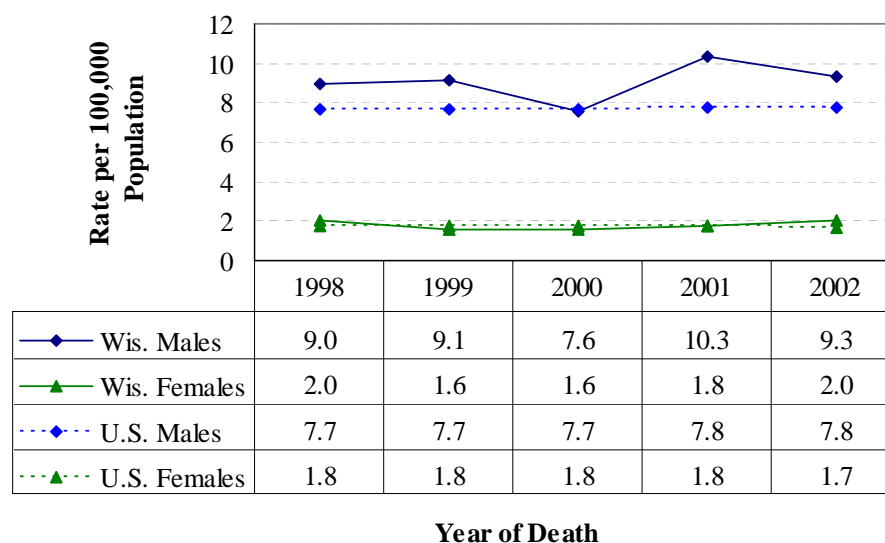
Figure 6.1. Esophageal Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

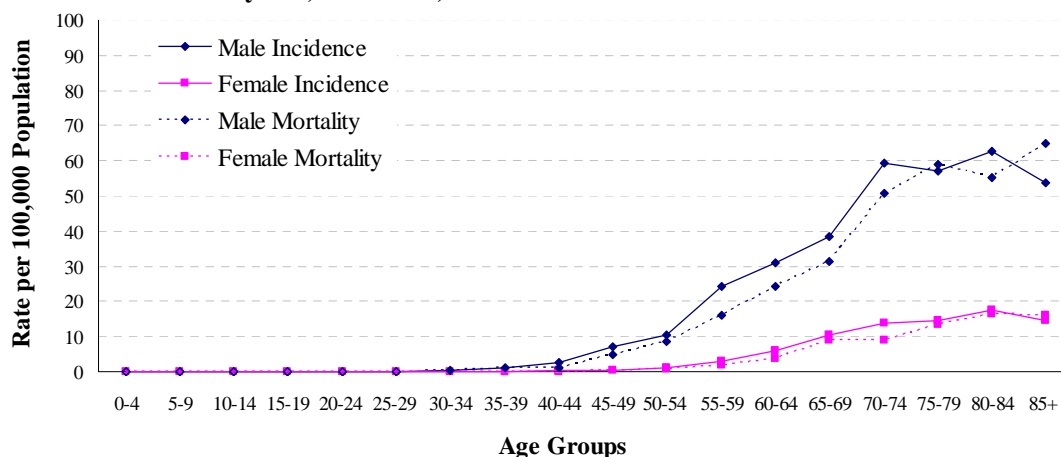
Figure 6.2. Esophageal Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

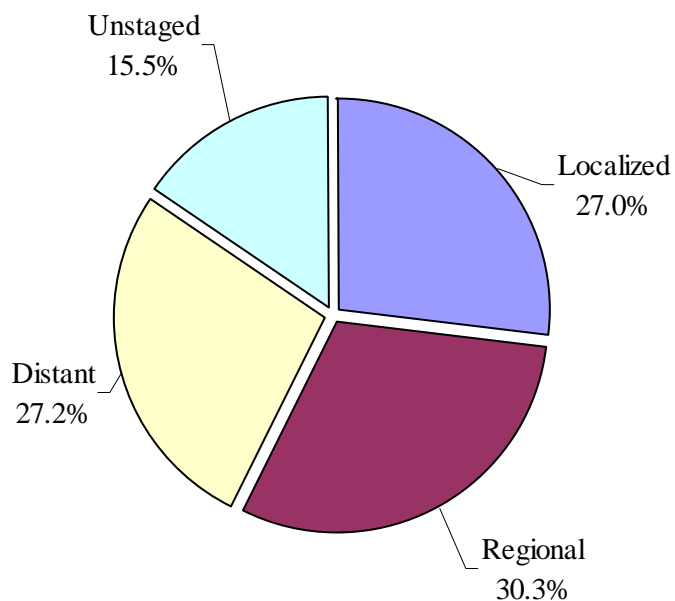
Figure 6.3. Esophageal Cancer, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

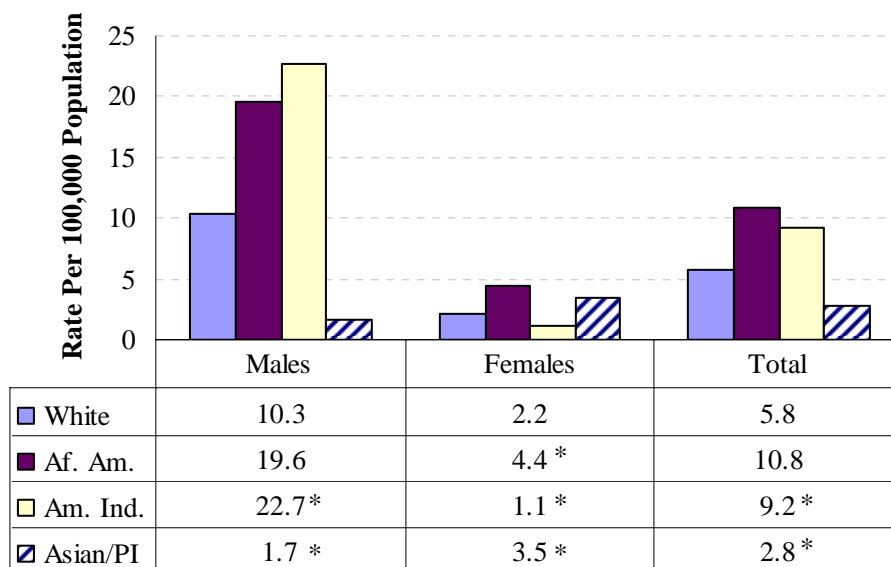
Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

Figure 6.4. Esophageal Cancer, Stage of Disease at Diagnosis, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

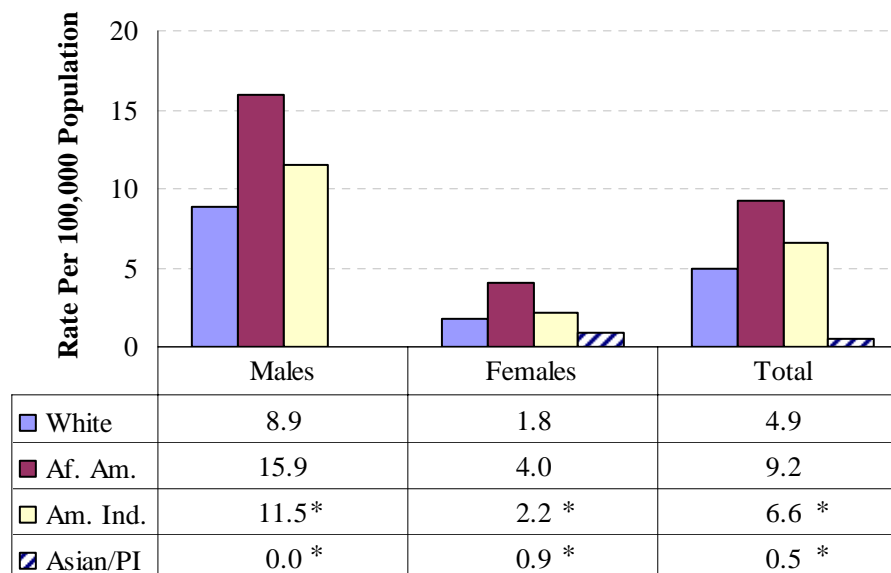
Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 6.5. Esophageal Cancer, Age-Adjusted Incidence Rates, by Race and Sex, Wisconsin, 1998 - 2002

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group, and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 6.6. Esophageal Cancer, Age-Adjusted Mortality Rates, by Race and Sex, Wisconsin, 1998 - 2002

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group, and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 6.3. Esophageal Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	8	6.2	2.6	14.5	4	2.9	0.7	10.1
Ashland County	6	6.1	2.2	14.4	7	7.0	2.8	15.6
Barron County	10	3.7	1.7	7.2	16	5.8	3.3	9.8
Bayfield County	10	10.4	5.0	21.9	4	4.1	1.1	14.0
Brown County	44	4.4	3.2	6.0	31	3.2	2.2	4.6
Buffalo County	2	2.1	0.3	10.2	1	1.0	0.0	8.6
Burnett County	7	6.1	2.4	15.2	6	4.9	1.8	13.4
Calumet County	7	4.0	1.6	8.3	11	6.1	3.1	11.1
Chippewa County	13	3.9	2.1	7.0	10	3.1	1.5	5.9
Clark County	8	4.5	1.9	9.3	6	2.9	1.1	7.0
Columbia County	15	5.1	2.9	8.7	18	6.0	3.5	9.8
Crawford County	6	5.6	2.0	13.7	2	1.7	0.2	8.3
Dane County	75	4.3	3.4	5.5	62	3.7	2.8	4.8
Dodge County	30	6.6	4.5	9.6	26	5.7	3.7	8.4
Door County	10	4.9	2.3	10.3	11	5.5	2.8	11.2
Douglas County	12	5.2	2.7	9.2	16	6.8	3.9	11.3
Dunn County	6	3.5	1.3	7.8	6	3.4	1.2	7.5
Eau Claire County	22	5.1	3.2	7.7	18	4.2	2.5	6.7
Florence County	2	6.2	0.7	33.2	3	8.6	1.7	36.1
Fond du Lac County	38	7.1	5.0	9.9	32	5.9	4.0	8.5
Forest County	3	3.8	0.8	15.3	4	5.5	1.5	17.6
Grant County	13	5.0	2.6	8.8	11	4.1	2.0	7.6
Green County	8	3.9	1.7	8.4	8	3.9	1.7	8.4
Green Lake County	8	5.6	2.4	12.8	5	3.4	1.1	9.9
Iowa County	5	4.3	1.4	11.0	7	6.0	2.4	13.2
Iron County	1	1.7	0.0	27.2	1	1.7	0.0	27.2
Jackson County	7	6.5	2.6	14.4	6	5.4	2.0	12.8
Jefferson County	23	6.1	3.8	9.2	23	6.1	3.9	9.2
Juneau County	18	12.1	7.2	19.9	12	8.1	4.2	15.0
Kenosha County	43	6.2	4.5	8.4	31	4.5	3.1	6.4
Kewaunee County	5	4.3	1.4	10.8	4	3.4	0.9	9.6
La Crosse County	29	5.6	3.7	8.1	21	4.0	2.5	6.2
Lafayette County	9	9.6	4.3	19.5	8	8.8	3.8	18.6
Langlade County	16	12.0	6.8	20.8	10	7.8	3.7	15.7
Lincoln County	15	8.5	4.7	14.6	11	6.2	3.1	11.7
Manitowoc County	31	6.5	4.4	9.4	29	6.1	4.1	9.0
Marathon County	35	5.5	3.8	7.6	37	5.8	4.1	8.1

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	20	7.1	4.3	11.6	14	5.1	2.8	9.1
Marquette County	9	8.2	3.7	17.8	5	4.5	1.5	13.1
Menominee County	1	3.6	0.1	70.5	1	4.4	0.1	71.4
Milwaukee County	308	6.8	6.1	7.6	264	5.8	5.1	6.5
Monroe County	10	4.6	2.2	8.6	10	4.4	2.1	8.5
Oconto County	12	5.9	3.0	10.9	11	5.3	2.6	10.1
Oneida County	23	9.0	5.7	14.4	15	6.0	3.3	10.9
Outagamie County	45	6.2	4.5	8.4	39	5.4	3.8	7.4
Ozaukee County	26	6.1	3.9	9.1	21	4.9	3.0	7.7
Pepin County	2	4.1	0.5	20.2	1	1.8	0.0	16.8
Pierce County	8	5.5	2.4	11.0	5	3.4	1.1	8.1
Polk County	7	2.8	1.1	6.4	7	2.7	1.1	6.3
Portage County	18	6.1	3.6	9.7	20	6.7	4.1	10.4
Price County	10	9.3	4.5	19.8	7	6.8	2.7	16.8
Racine County	63	6.7	5.1	8.6	46	4.9	3.6	6.6
Richland County	7	5.8	2.3	13.3	11	10.1	5.0	19.2
Rock County	52	6.7	5.0	8.9	35	4.6	3.2	6.4
Rusk County	6	5.9	2.1	15.0	5	4.8	1.5	13.4
St Croix County	12	4.4	2.2	7.8	11	4.0	2.0	7.3
Sauk County	23	7.3	4.6	11.3	19	6.0	3.6	9.6
Sawyer County	6	5.8	2.1	14.8	4	4.0	1.1	12.5
Shawano County	19	7.2	4.3	11.7	15	5.7	3.2	9.9
Sheboygan County	30	5.0	3.4	7.3	24	3.8	2.4	5.7
Taylor County	10	8.7	4.1	16.8	7	5.9	2.3	13.1
Trempealeau County	5	3.0	1.0	7.9	4	2.5	0.7	7.4
Vernon County	8	4.9	2.1	10.6	6	3.3	1.2	8.2
Vilas County	12	6.6	3.4	14.0	13	7.6	4.0	15.5
Walworth County	24	5.1	3.3	7.6	18	3.8	2.3	6.1
Washburn County	7	6.5	2.6	15.9	8	7.4	3.2	17.0
Washington County	28	5.0	3.3	7.3	26	4.7	3.0	6.9
Waukesha County	113	6.3	5.2	7.6	90	5.0	4.0	6.2
Waupaca County	20	6.1	3.7	9.8	15	4.7	2.6	8.1
Waushara County	11	7.2	3.5	14.5	11	7.5	3.7	14.8
Winnebago County	60	7.7	5.9	10.0	50	6.4	4.7	8.4
Wood County	31	7.0	4.8	10.2	23	5.1	3.2	7.8

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population, and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 7: Cancers of the Kidney and Renal Pelvis

Incidence

Each year during 1998-2002, more than 700 Wisconsin residents were diagnosed with cancer of the kidney and renal pelvis. The age-adjusted incidence rate (13.2 per 100,000) was stable during that five-year period.

The average annual age-adjusted incidence rate for Wisconsin males (17.7 per 100,000) was almost twice the rate for Wisconsin females (9.5 per 100,000) (Figure 7.1).

Fifty-six percent of all kidney and renal cancer cases were diagnosed at the early (localized) stage, and 35 percent at the regional or distant stage (Figure 7.4).

Among the four major racial groups in Wisconsin, American Indians had the highest age-adjusted incidence rate of kidney and renal cancer (22.6 per 100,000) and Asian/Pacific Islanders had the lowest (5.8 per 100,000) (Figure 7.5).

Mortality

Each year during the 1998-2002 period, approximately 250 Wisconsin residents died of cancer of the kidney and renal pelvis (Table 7.2).

For this five-year period, the male mortality rate (6.6 per 100,000) was over twice the female rate (2.8 per 100,000). This is consistent with national trends (Figure 7.2).

Mortality rates for this cancer varied by race. American Indians had the highest mortality rate among both males and females (Figure 7.6).

The mortality rate in Wisconsin for kidney and renal pelvic cancer increased by 0.6 percent annually among males and by 4.4 percent annually among females during the five-year period 1998-2002 (Table 7.2).

Table 7.1. Kidney and Renal Pelvis Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	437	17.7	0.1%	288	9.5	-0.7%	724	13.2	0.0%
1998	397	16.7	N/A	297	10.1	N/A	694	13.0	N/A
1999	472	19.6	N/A	283	9.5	N/A	755	14.0	N/A
2000	406	16.3	N/A	269	8.9	N/A	675	12.4	N/A
2001	461	18.4	N/A	290	9.5	N/A	751	13.6	N/A
2002	447	17.5	N/A	299	9.7	N/A	746	13.2	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

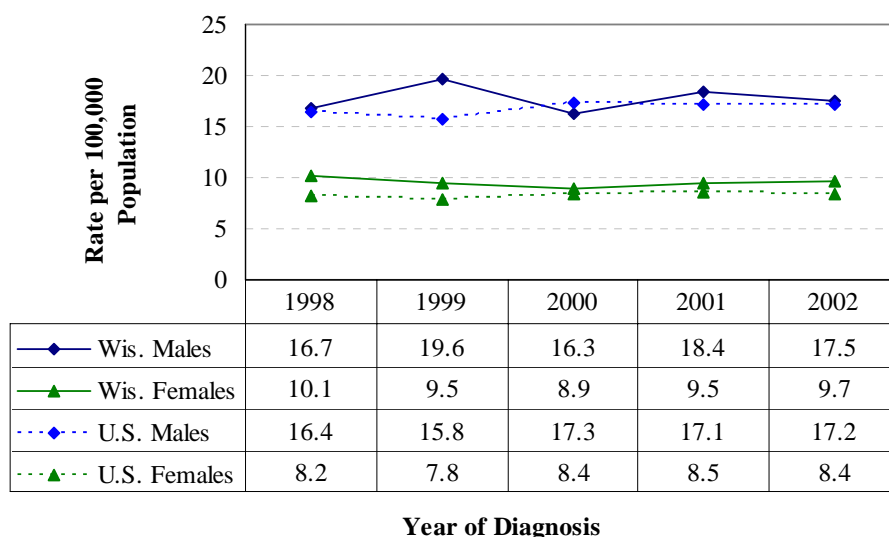
Table 7.2. Kidney and Renal Pelvis Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	157	6.6	0.6%	91	2.8	4.4%	248	4.5	2.6%
1998	145	6.4	N/A	82	2.6	N/A	227	4.2	N/A
1999	165	7.1	N/A	81	2.6	N/A	246	4.5	N/A
2000	149	6.3	N/A	102	3.1	N/A	251	4.5	N/A
2001	157	6.5	N/A	84	2.6	N/A	241	4.3	N/A
2002	170	6.9	N/A	104	3.2	N/A	274	4.8	N/A

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

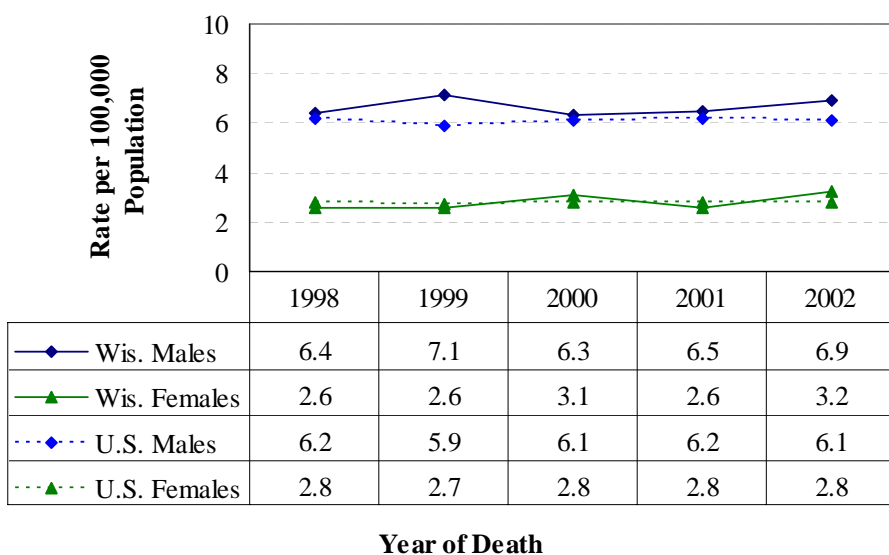
Figure 7.1. Kidney and Renal Pelvis Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

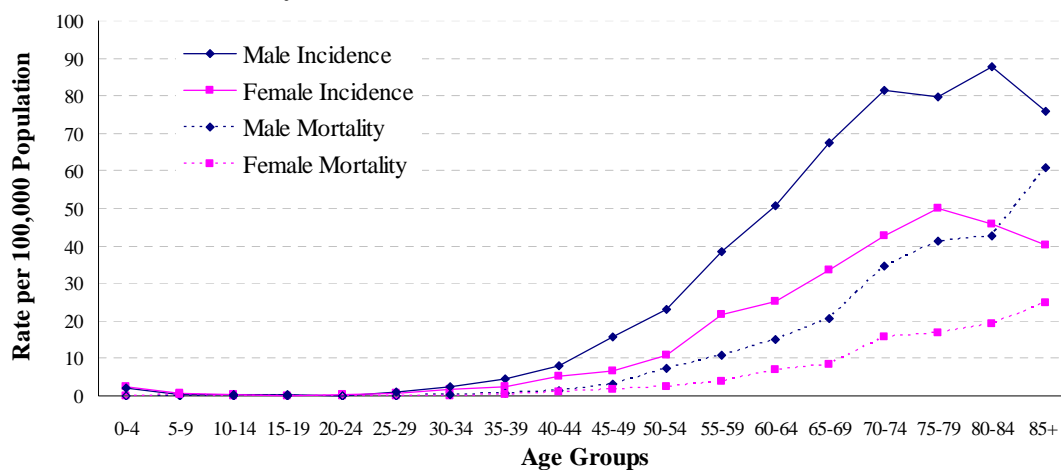
Figure 7.2. Kidney and Renal Pelvis Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

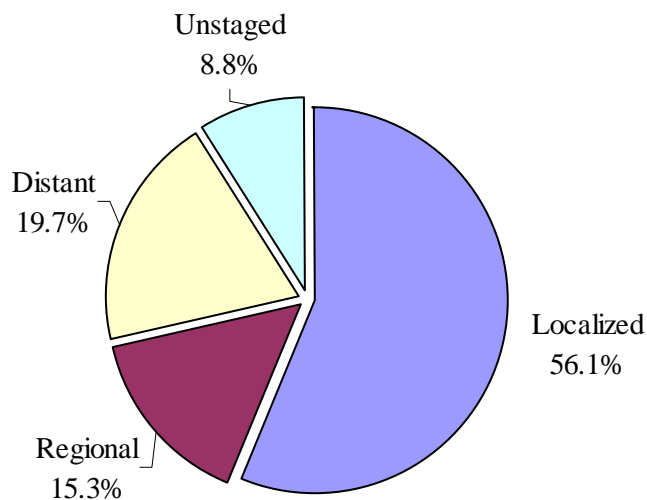
Figure 7.3. Kidney and Renal Pelvis Cancer, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

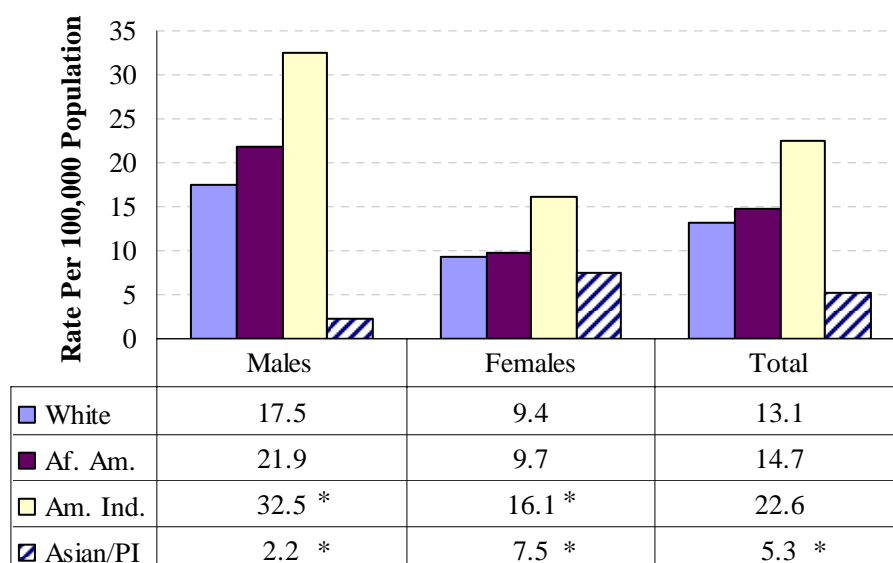
Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

Figure 7.4. Kidney and Renal Pelvis Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

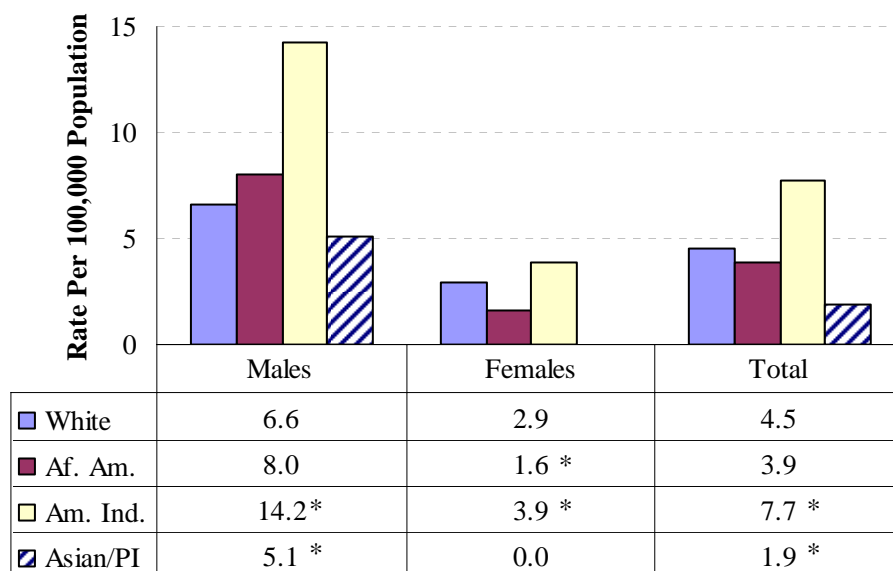
Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 7.5. Kidney and Renal Pelvis Cancer, Age-Adjusted Incidence Rates, By Race and Sex, Wisconsin, 1998 – 2002

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 7.6. Kidney and Renal Pelvis Cancer, Age-Adjusted Mortality Rates, By Race and Sex, Wisconsin, 1998 - 2002

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 7.3. Kidney and Renal Pelvis Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	20	15.8	9.4	26.3	11	7.3	3.6	15.4
Ashland County	9	9.5	4.3	18.9	5	4.4	1.4	11.6
Barron County	25	9.1	5.8	13.8	5	1.8	0.6	4.7
Bayfield County	15	16.0	8.9	28.8	6	6.4	2.3	16.9
Brown County	151	15.0	12.7	17.6	46	4.6	3.3	6.1
Buffalo County	6	7.7	2.8	18.2	0	0.0	0.0	7.3
Burnett County	5	4.3	1.4	13.0	6	5.0	1.8	13.7
Calumet County	25	13.3	8.6	19.8	9	4.9	2.2	9.5
Chippewa County	36	11.8	8.3	16.6	17	5.5	3.2	8.9
Clark County	29	14.5	9.6	21.3	10	4.8	2.2	9.3
Columbia County	45	15.8	11.5	21.3	23	7.5	4.8	11.6
Crawford County	17	16.6	9.6	27.8	3	2.9	0.6	10.2
Dane County	207	11.3	9.8	13.0	52	3.0	2.2	3.9
Dodge County	61	13.7	10.4	17.6	26	5.5	3.6	8.2
Door County	24	12.2	7.8	19.2	4	1.9	0.5	6.6
Douglas County	26	11.3	7.4	16.8	13	5.4	2.8	9.5
Dunn County	16	9.2	5.2	15.0	8	4.8	2.1	9.5
Eau Claire County	55	12.5	9.4	16.3	24	5.1	3.2	7.6
Florence County	3	8.5	1.7	35.8	2	5.7	0.7	32.4
Fond du Lac County	73	14.0	11.0	17.7	14	2.5	1.4	4.4
Forest County	4	5.6	1.5	17.8	0	0.0	0.0	10.4
Grant County	30	10.4	7.0	15.2	14	4.4	2.4	7.8
Green County	22	11.9	7.5	18.6	9	4.7	2.1	9.6
Green Lake County	16	12.7	7.2	22.1	5	3.9	1.2	10.8
Iowa County	14	11.6	6.3	20.1	2	1.7	0.2	7.2
Iron County	8	14.1	5.9	41.0	3	4.7	1.0	30.2
Jackson County	25	22.9	14.8	34.6	9	8.4	3.8	16.9
Jefferson County	47	12.5	9.1	16.6	21	5.6	3.5	8.6
Juneau County	18	12.2	7.2	20.0	9	5.8	2.6	11.9
Kenosha County	106	15.2	12.4	18.4	30	4.3	2.9	6.2
Kewaunee County	19	16.7	10.0	26.7	8	6.9	3.0	14.4
La Crosse County	74	14.7	11.5	18.4	19	3.7	2.3	5.9
Lafayette County	9	9.2	4.2	18.9	6	6.6	2.4	15.6
Langlade County	16	12.0	6.8	20.7	6	4.0	1.4	10.4
Lincoln County	33	18.3	12.6	26.4	15	7.5	4.2	13.2
Manitowoc County	56	11.9	9.0	15.6	25	5.1	3.3	7.8
Marathon County	109	16.9	13.8	20.4	44	6.8	5.0	9.2

Chapter 7: Cancers of the Kidney and Renal Pelvis

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	22	8.1	5.0	12.9	10	3.3	1.6	6.9
Marquette County	15	15.6	8.6	27.5	2	2.5	0.3	10.8
Menominee County	5	31.3	8.7	106.1	2	9.1	1.0	76.3
Milwaukee County	621	13.7	12.6	14.8	219	4.7	4.1	5.4
Monroe County	22	10.1	6.3	15.5	5	2.3	0.7	5.7
Oconto County	29	14.5	9.6	21.3	10	4.9	2.4	9.7
Oneida County	43	17.7	12.8	24.8	10	4.1	1.9	8.6
Outagamie County	102	14.2	11.6	17.3	37	5.2	3.7	7.2
Ozaukee County	53	12.0	9.0	15.9	20	4.7	2.9	7.4
Pepin County	7	15.6	6.2	35.9	1	1.8	0.0	16.8
Pierce County	10	6.9	3.3	12.9	3	2.1	0.4	6.4
Polk County	14	5.7	3.1	10.1	8	3.3	1.4	7.0
Portage County	42	14.1	10.2	19.1	8	2.7	1.2	5.3
Price County	11	10.4	5.1	21.2	4	3.6	1.0	12.6
Racine County	105	11.2	9.1	13.6	32	3.4	2.3	4.8
Richland County	12	10.7	5.4	19.8	5	4.5	1.4	11.9
Rock County	108	14.1	11.5	17.0	43	5.6	4.0	7.5
Rusk County	10	10.7	5.1	21.3	5	4.7	1.5	13.1
St Croix County	27	10.0	6.5	14.7	19	7.0	4.2	11.1
Sauk County	31	10.5	7.1	15.1	11	3.7	1.8	6.8
Sawyer County	16	14.2	8.1	25.1	9	7.9	3.6	17.3
Shawano County	34	13.6	9.4	19.5	11	4.3	2.1	8.2
Sheboygan County	78	13.1	10.4	16.5	19	3.1	1.9	4.9
Taylor County	17	15.2	8.8	25.0	9	7.5	3.4	15.1
Trempealeau County	15	9.4	5.2	16.2	2	1.0	0.1	5.1
Vernon County	29	16.9	11.2	25.0	9	4.5	2.1	9.8
Vilas County	18	10.5	6.1	19.0	4	2.3	0.6	9.1
Walworth County	53	11.4	8.5	15.0	26	5.4	3.5	8.0
Washburn County	16	14.7	8.3	25.9	4	4.0	1.1	12.9
Washington County	74	12.9	10.1	16.2	24	4.3	2.8	6.5
Waukesha County	275	15.0	13.3	16.9	79	4.3	3.4	5.5
Waupaca County	47	15.7	11.5	21.2	16	5.2	3.0	8.8
Waushara County	16	10.4	5.8	18.4	8	5.3	2.2	11.9
Winnebago County	126	16.2	13.5	19.3	47	6.0	4.4	8.1
Wood County	64	15.1	11.6	19.5	9	2.1	1.0	4.1

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 8: Leukemia

Incidence

Approximately 785 Wisconsin residents were diagnosed with leukemia each year during 1998-2002 (Table 8.1). Certain types of leukemia occur more frequently in children; it was the most commonly diagnosed cancer among both males and females under age 15 (Table 1.4).

The average annual age-adjusted incidence rate for 1998-2002 for leukemia was higher for males than females (18.2 per 100,000 compared to 11.2 per 100,000) (Table 8.1).

Among the four racial groups, age-adjusted incidence rates (male and female) were highest for whites and lowest for Asian/Pacific Islanders. Due to the small number of cases among American Indians, it is difficult to interpret the rate (Figure 8.5).

Mortality

During 1998-2002 there was an average of 466 deaths from leukemia each year among Wisconsin residents (Table 8.2). Among males under age 25, leukemia was the leading cause of cancer deaths and among females under age 15, it was the second leading cause of cancer deaths (Table 1.5).

As observed for leukemia incidence rates, leukemia mortality rates were higher among males (10.7 per 100,000) than females (6.7 per 100,000) (Table 8.2). National rates show a similar pattern (Figure 8.2).

Whites and African Americans had higher mortality rates (8.3 per 100,000 in each group) than American Indians (2.8 per 100,000) and Asian/Pacific Islanders (2.7 per 100,000), although the small number of cases in the latter two groups makes their rates less reliable (Figure 8.6).

Table 8.1. Leukemia Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	438	18.2	-1.8%	347	11.2	-2.8%	785	14.2	-2.1%
1998	463	19.9	N/A	365	12.0	N/A	828	15.3	N/A
1999	427	18.1	N/A	364	11.9	N/A	791	14.5	N/A
2000	396	16.5	N/A	329	10.6	N/A	725	13.2	N/A
2001	464	19.0	N/A	342	11.1	N/A	806	14.5	N/A
2002	440	17.8	N/A	333	10.7	N/A	773	13.8	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

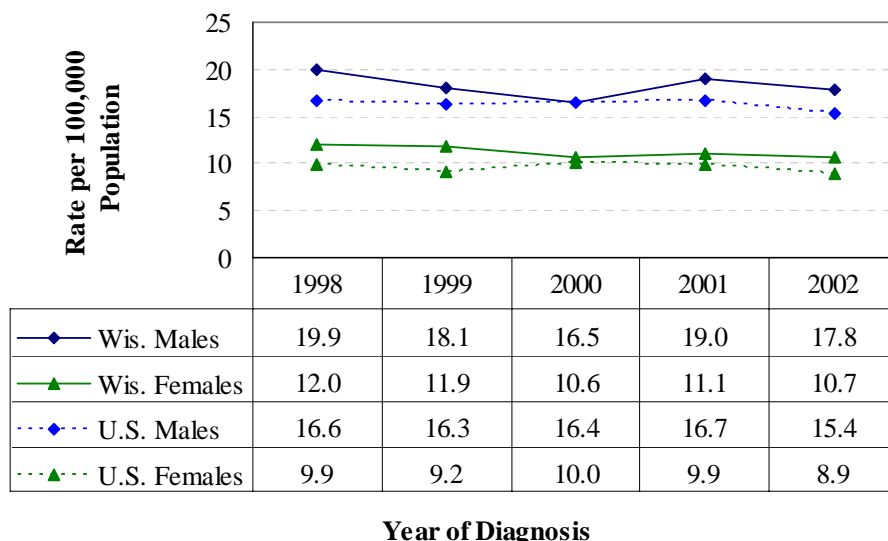
Table 8.2. Leukemia Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	248	10.7	-3.2%	218	6.7	-1.3%	466	8.3	-1.9%
1998	253	11.2	N/A	218	6.9	N/A	471	8.6	N/A
1999	257	11.4	N/A	212	6.6	N/A	469	8.5	N/A
2000	232	10.0	N/A	227	6.8	N/A	459	8.2	N/A
2001	270	11.5	N/A	211	6.3	N/A	481	8.5	N/A
2002	226	9.5	N/A	222	6.6	N/A	448	7.8	N/A

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

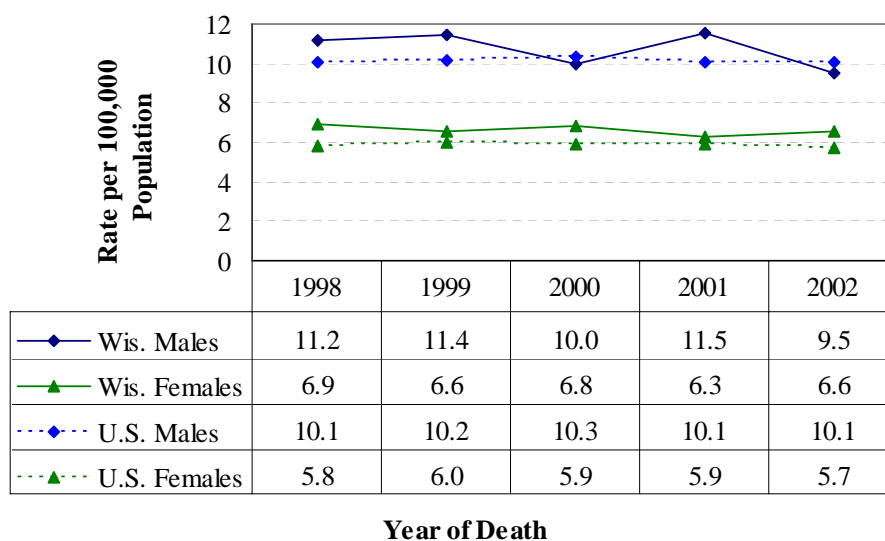
Figure 8.1. Leukemia, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

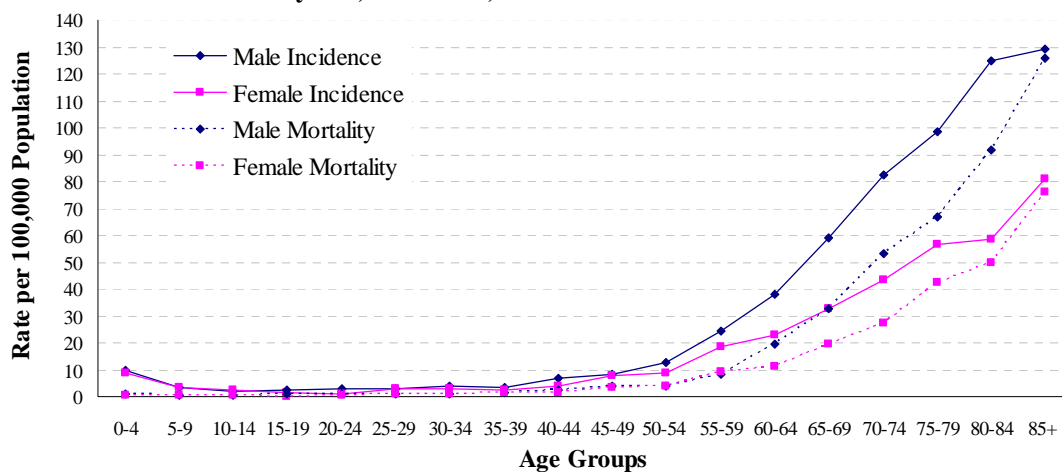
Figure 8.2. Leukemia, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, Wisconsin, 1998 - 2002



Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

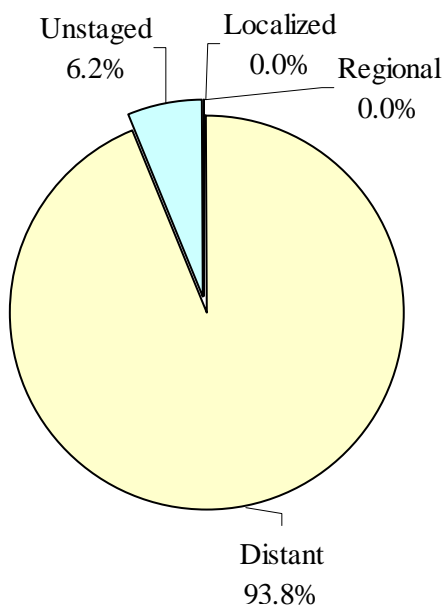
Figure 8.3. Leukemia, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

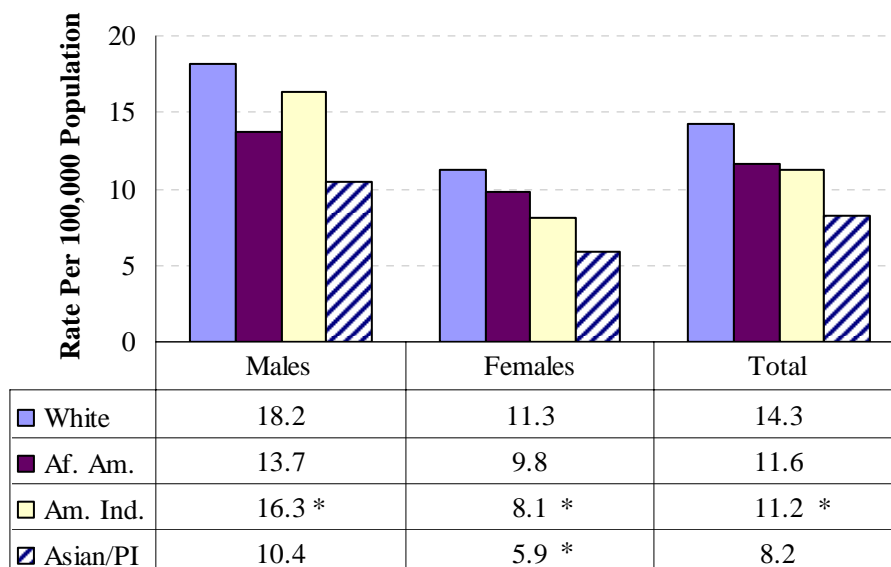
Figure 8.4. Leukemia, Stage of Disease at Diagnosis, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 8.5. Leukemia, Age-Adjusted Incidence Rates, by Race and Sex, Wisconsin, 1998 - 2002

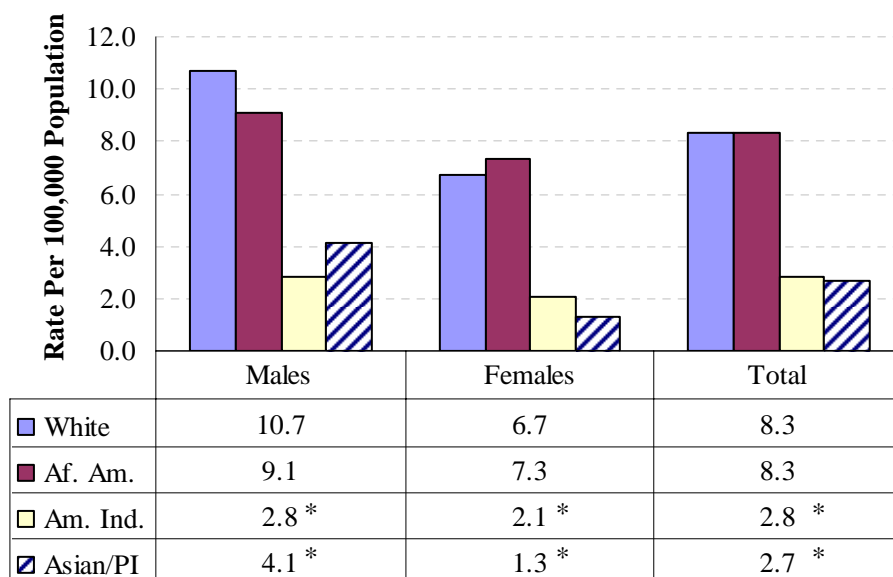


Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 8.6. Leukemia, Age-Adjusted Mortality Rates, by Race and Sex, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 8.3. Leukemia Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	19	13.9	8.3	23.7	11	7.2	3.5	15.2
Ashland County	14	14.1	7.5	24.7	5	4.4	1.4	11.8
Barron County	31	11.1	7.5	16.1	17	5.5	3.2	9.3
Bayfield County	8	8.4	3.6	19.5	6	6.2	2.3	16.6
Brown County	113	11.0	9.1	13.3	77	7.5	5.9	9.4
Buffalo County	12	14.4	7.4	26.6	10	12.4	5.9	24.3
Burnett County	7	6.1	2.4	15.1	11	9.3	4.6	19.1
Calumet County	17	9.6	5.6	15.4	10	5.4	2.6	10.1
Chippewa County	49	15.8	11.6	21.0	31	10.0	6.8	14.4
Clark County	31	15.4	10.4	22.3	21	9.3	5.7	14.8
Columbia County	47	16.2	11.9	21.8	29	9.7	6.5	14.2
Crawford County	12	11.6	5.9	21.6	10	9.5	4.5	18.9
Dane County	293	16.8	14.9	18.8	145	8.4	7.1	10.0
Dodge County	70	15.3	11.9	19.4	54	11.6	8.7	15.3
Door County	24	12.1	7.7	19.1	15	6.9	3.9	12.7
Douglas County	28	11.3	7.5	16.7	19	7.2	4.3	11.6
Dunn County	16	9.2	5.3	15.1	13	7.2	3.8	12.5
Eau Claire County	55	12.5	9.4	16.3	38	8.5	6.0	11.7
Florence County	2	6.0	0.7	32.9	1	3.1	0.1	29.2
Fond du Lac County	73	13.9	10.8	17.5	50	9.1	6.8	12.1
Forest County	6	8.9	3.2	22.5	1	1.3	0.0	12.1
Grant County	46	16.6	12.1	22.4	26	9.1	5.9	13.6
Green County	27	14.4	9.4	21.5	11	5.8	2.9	11.1
Green Lake County	17	13.6	7.8	23.1	11	8.3	4.1	16.4
Iowa County	12	10.6	5.4	19.2	11	9.5	4.7	17.7
Iron County	5	13.6	3.7	43.5	5	14.5	3.8	45.5
Jackson County	17	15.4	9.0	25.6	11	9.8	4.9	18.6
Jefferson County	58	15.3	11.6	19.8	27	6.9	4.6	10.1
Juneau County	21	14.3	8.8	22.7	12	8.0	4.1	14.8
Kenosha County	79	11.1	8.8	13.9	46	6.5	4.8	8.7
Kewaunee County	20	17.3	10.5	27.5	11	9.2	4.6	17.2
La Crosse County	79	14.9	11.8	18.7	53	9.9	7.4	13.0
Lafayette County	9	10.4	4.7	20.9	5	5.3	1.7	13.9
Langlade County	15	10.9	6.0	19.4	6	4.9	1.6	12.3
Lincoln County	33	19.8	13.5	28.5	24	12.9	8.2	20.1
Manitowoc County	43	9.1	6.5	12.4	33	6.7	4.6	9.6
Marathon County	109	16.7	13.7	20.2	56	8.5	6.4	11.1

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	28	9.7	6.4	14.6	22	7.5	4.6	12.0
Marquette County	19	19.9	11.6	33.0	14	12.7	6.9	23.3
Menominee County	2	24.1	1.9	107.7	2	10.0	1.2	77.6
Milwaukee County	624	13.3	12.3	14.4	418	8.8	8.0	9.7
Monroe County	31	14.2	9.6	20.4	19	8.5	5.1	13.6
Oconto County	15	7.4	4.1	12.8	10	4.8	2.3	9.5
Oneida County	41	17.3	12.3	24.4	16	6.2	3.5	11.1
Outagamie County	130	17.7	14.8	21.0	60	8.4	6.4	10.8
Ozaukee County	64	14.9	11.5	19.2	32	7.6	5.2	10.9
Pepin County	4	8.5	2.3	26.2	5	9.1	2.9	26.5
Pierce County	18	12.3	7.3	19.6	15	10.2	5.7	17.0
Polk County	27	11.3	7.4	16.9	21	8.6	5.3	13.6
Portage County	45	15.0	10.9	20.1	20	6.6	4.0	10.3
Price County	9	7.7	3.5	17.6	8	6.5	2.7	16.2
Racine County	120	12.8	10.7	15.4	72	7.8	6.1	9.8
Richland County	19	16.4	9.8	26.7	9	7.3	3.3	15.2
Rock County	115	15.1	12.4	18.1	42	5.5	4.0	7.5
Rusk County	13	12.9	6.8	23.8	10	9.3	4.4	19.1
St Croix County	19	7.1	4.3	11.3	19	7.3	4.3	11.5
Sauk County	38	12.3	8.7	17.1	23	7.2	4.5	11.1
Sawyer County	11	10.3	5.1	20.5	8	7.0	3.0	16.1
Shawano County	44	17.8	12.8	24.3	24	9.3	5.9	14.3
Sheboygan County	105	17.7	14.5	21.5	52	8.4	6.3	11.1
Taylor County	21	19.5	11.9	30.4	13	10.8	5.7	19.3
Trempealeau County	35	22.7	15.6	32.3	10	5.3	2.5	10.7
Vernon County	26	15.7	10.1	23.9	15	7.9	4.4	14.1
Vilas County	34	21.5	14.5	32.3	15	8.1	4.5	15.8
Walworth County	70	15.0	11.7	19.0	33	6.7	4.6	9.5
Washburn County	8	9.1	3.8	20.1	6	5.8	2.1	15.1
Washington County	102	18.2	14.8	22.1	48	8.9	6.5	11.8
Waukesha County	304	17.0	15.2	19.1	175	9.8	8.4	11.4
Waupaca County	61	18.5	14.1	24.1	37	10.5	7.4	14.9
Waushara County	17	11.2	6.4	19.5	14	9.6	5.1	17.6
Winnebago County	103	13.2	10.8	16.1	71	8.9	6.9	11.2
Wood County	84	18.9	15.0	23.6	48	10.4	7.6	14.0

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 9: Cancers of the Lung and Bronchus

Incidence

From 1998 to 2002, each year approximately 3,600 Wisconsin residents were diagnosed with cancer of the lung and bronchus (Table 9.1). Cancer of the lung and bronchus is the third most commonly diagnosed cancer in Wisconsin, following prostate and breast cancers (Figures 1.7 and 1.8).

Cancer of the lung and bronchus occurred more often among men (85.1 per 100,000 population) than among women (51.7 per 100,000 population). Over the 1998-2002 period, males in Wisconsin had higher lung cancer incidence rates than their national counterparts (Figure 9.1).

African Americans and American Indians had the highest rates of lung and bronchus cancers (97.4 per 100,000 and 80.4 per 100,000, respectively). Asian/Pacific Islanders had the lowest rate for this cancer (36.9 per 100,000) (Figure 9.5).

Twenty-one percent of cases were diagnosed at the localized stage of disease during 1998-2002, 27 percent were diagnosed at the regional stage, and 38 percent at the distant stage (Figure 9.4).

Over the 1998-2002 period, lung cancer incidence declined an average of 2.9 percent annually among males; there was no decline among women (Table 9.1).

Lung cancer incidence rates for the combined years 1998-2002 varied dramatically by county, ranging from 34.9 per 100,000 in Calumet County to 151.2 per 100,000 in Menominee County (Table 9.5).

Mortality

During 1998- 2002, cancer of the lung and bronchus was the leading cause of cancer-related death for both men and women (Table 9.2).

Lung cancer mortality varied greatly by race, closely following incidence patterns. African Americans had the highest death rate (73.9 per 100,000), and Asian/Pacific Islanders had the lowest (24.4 per 100,000) (Figure 9.6).

Wisconsin lung cancer mortality rates during 1998-2002 for both men and women were lower than national rates (Figure 9.2).

During 1998-2002, lung cancer mortality rates declined among Wisconsin men by an annual average of 2.7 percent and increased among women an annual average of 1.5 percent (Table 9.1).

By county, lung cancer mortality rates for the combined years 1998-2002 ranged from a low of 30.4 per 100,000 in Trempealeau County to a high of 72.1 per 100,000 in Menominee County (Table 9.3).

Table 9.1. Lung Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	2,039	85.1	-2.9%	1,562	51.7	0.4%	3,602	65.6	-1.4%
1998	2,078	89.2	N/A	1,587	53.3	N/A	3,665	68.1	N/A
1999	2,117	89.4	N/A	1,498	50.3	N/A	3,615	66.7	N/A
2000	2,032	84.8	N/A	1,465	48.5	N/A	3,497	63.8	N/A
2001	1,981	81.5	N/A	1,643	53.9	N/A	3,624	65.3	N/A
2002	1,989	80.7	N/A	1,619	52.5	N/A	3,608	64.2	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

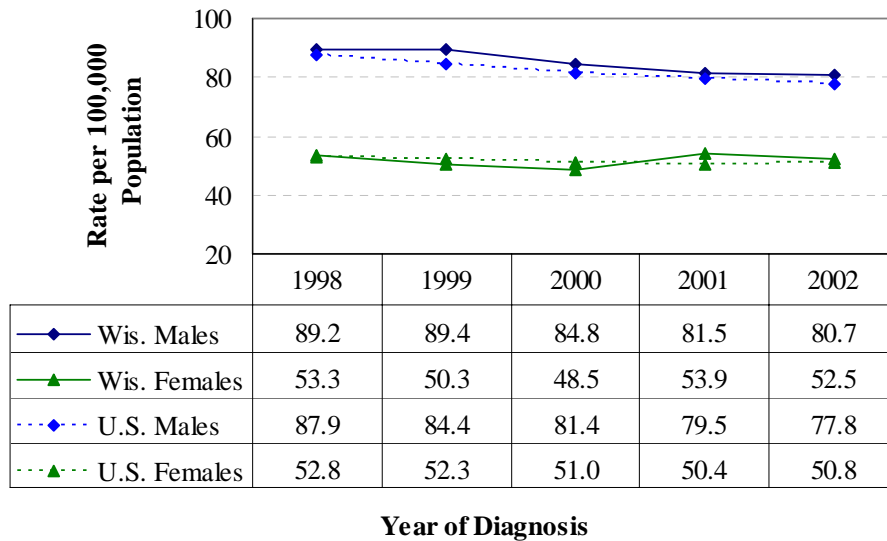
Table 9.2. Lung Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	1,576	66.7	-2.7%	1,149	37.2	1.5%	2,725	49.3	-0.8%
1998	1,650	72.2	N/A	1,147	37.8	N/A	2,797	51.7	N/A
1999	1,553	66.4	N/A	1,089	35.7	N/A	2,642	48.5	N/A
2000	1,574	66.7	N/A	1,082	35.1	N/A	2,656	48.2	N/A
2001	1,548	64.7	N/A	1,186	37.7	N/A	2,734	48.9	N/A
2002	1,555	64.0	N/A	1,242	39.7	N/A	2,797	49.5	N/A

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

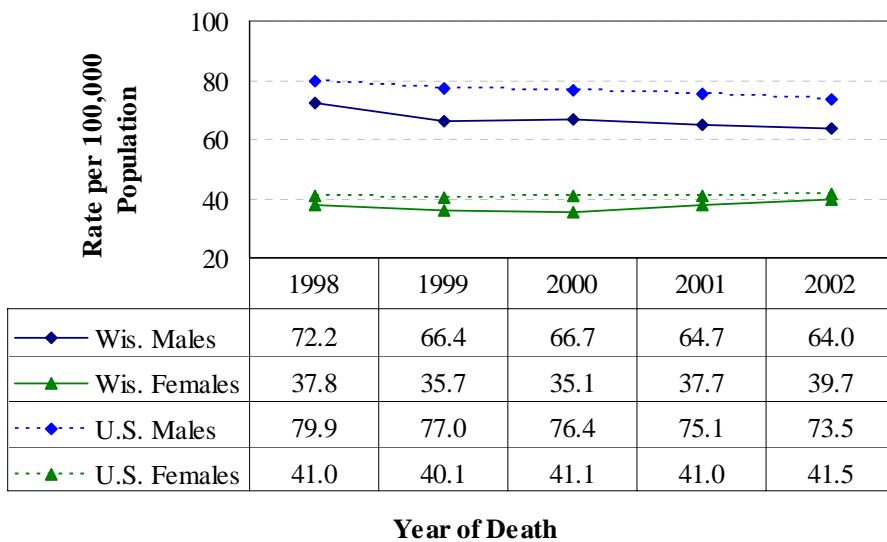
Figure 9.1. Lung Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

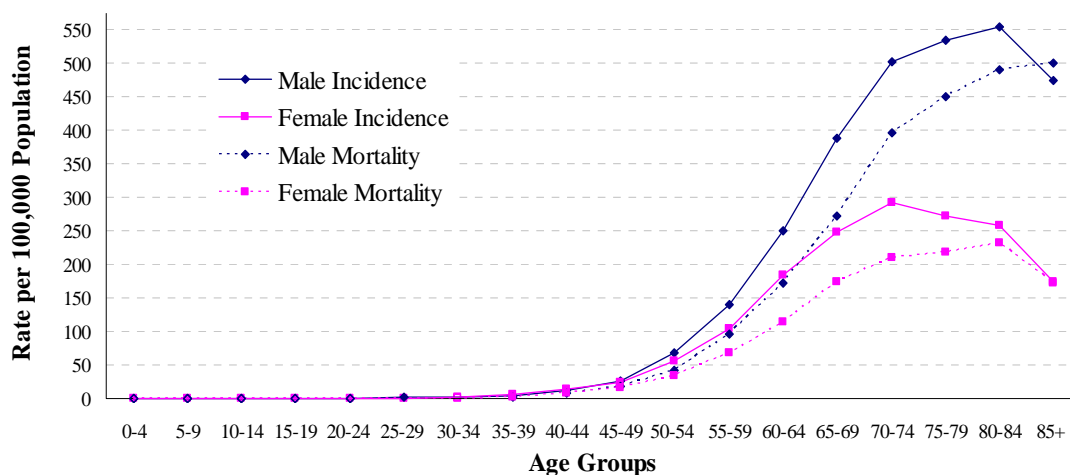
Figure 9.2. Lung Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

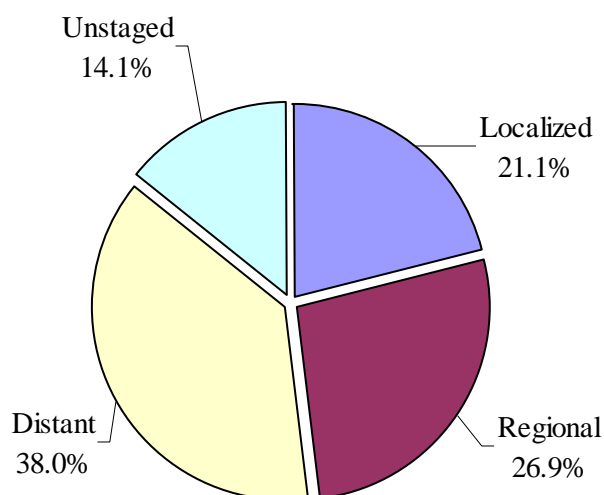
Figure 9.3. Lung Cancer, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

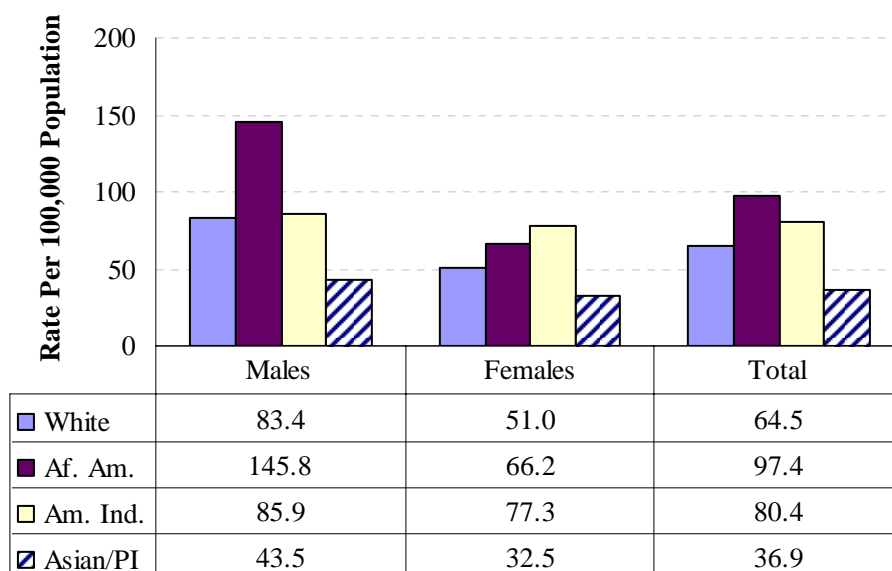
Figure 9.4. Lung Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

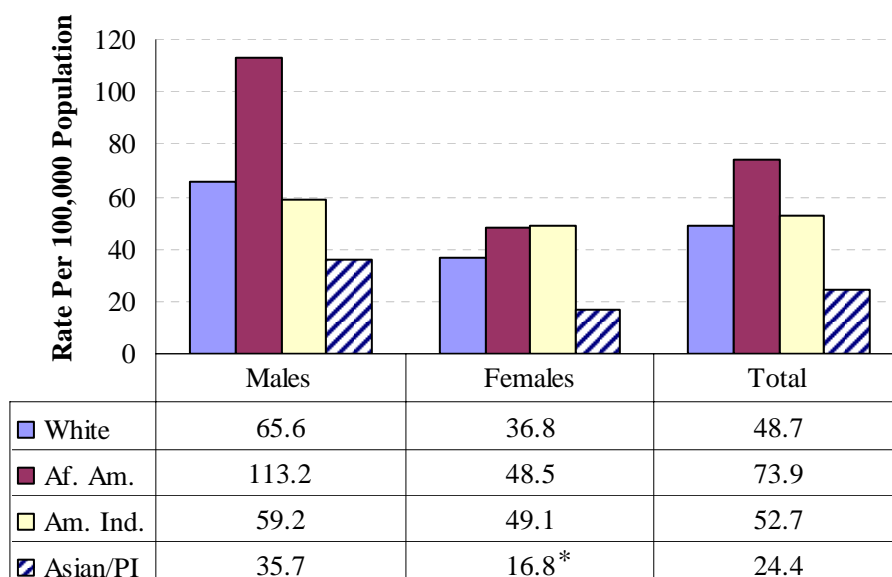
Figure 9.5. Lung Cancer, Age-Adjusted Incidence Rates, by Race and Sex, Wisconsin, 1998 - 2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

Figure 9.6. Lung Cancer, Age-Adjusted Mortality Rates, by Race and Sex, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 9.3. Lung Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	93	63.7	51.0	79.9	100	66.7	54.0	82.8
Ashland County	84	87.7	69.7	109.4	60	60.4	45.9	78.7
Barron County	158	57.4	48.8	67.5	147	52.8	44.6	62.5
Bayfield County	48	50.4	37.2	68.9	59	62.0	47.1	81.9
Brown County	554	55.8	51.2	60.6	439	44.4	40.3	48.7
Buffalo County	49	56.8	41.9	76.3	38	43.5	30.7	60.9
Burnett County	73	62.0	48.4	79.9	72	60.2	46.9	77.7
Calumet County	63	34.9	26.8	44.8	66	37.3	28.8	47.5
Chippewa County	195	63.8	55.2	73.6	145	46.9	39.6	55.4
Clark County	93	48.2	38.8	59.6	61	30.9	23.5	40.2
Columbia County	199	68.1	59.0	78.5	150	50.8	42.9	59.8
Crawford County	90	85.9	69.0	106.6	55	51.9	39.1	68.6
Dane County	1,013	60.2	56.5	64.0	724	43.5	40.4	46.8
Dodge County	240	52.7	46.2	59.9	211	45.8	39.8	52.5
Door County	120	60.0	49.7	72.6	84	41.7	33.3	52.6
Douglas County	172	71.6	61.3	83.4	154	63.0	53.4	74.0
Dunn County	74	42.6	33.4	53.6	74	42.2	33.1	53.1
Eau Claire County	215	48.6	42.3	55.6	189	42.3	36.4	48.8
Florence County	20	59.0	35.9	98.3	16	47.3	27.0	84.2
Fond du Lac County	326	61.5	55.0	68.6	247	45.8	40.2	52.0
Forest County	61	90.6	68.9	118.7	47	67.7	49.4	92.3
Grant County	142	50.4	42.4	59.7	105	36.2	29.5	44.1
Green County	98	52.8	42.8	64.8	71	37.4	29.2	47.7
Green Lake County	89	69.2	55.4	86.3	70	53.1	41.3	68.4
Iowa County	65	55.1	42.5	70.7	54	45.6	34.2	60.0
Iron County	41	76.5	54.5	113.2	31	52.8	35.7	85.0
Jackson County	76	70.6	55.6	89.1	52	47.8	35.7	63.5
Jefferson County	251	66.4	58.4	75.2	199	52.6	45.5	60.5
Juneau County	132	86.4	72.2	103.1	107	68.4	56.0	83.3
Kenosha County	546	79.4	72.9	86.4	407	59.2	53.6	65.3
Kewaunee County	55	47.2	35.5	62.1	35	29.9	20.8	42.2
La Crosse County	309	59.8	53.3	66.9	257	49.2	43.4	55.7
Lafayette County	46	48.6	35.5	65.9	34	35.3	24.4	50.4
Langlade County	107	76.0	62.1	93.0	67	45.7	35.3	59.2
Lincoln County	144	80.2	67.6	95.0	91	50.6	40.7	62.7
Manitowoc County	268	54.9	48.5	62.0	211	42.5	37.0	48.8
Marathon County	367	57.2	51.5	63.4	282	43.7	38.7	49.1

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	199	70.6	61.1	81.6	168	58.0	49.5	68.0
Marquette County	122	113.4	93.9	137.1	66	62.3	48.0	80.9
Menominee County	21	151.2	85.5	262.5	9	72.1	29.1	164.8
Milwaukee County	3,510	76.8	74.2	79.3	2,655	57.4	55.3	59.7
Monroe County	159	72.4	61.5	84.7	123	55.6	46.2	66.5
Oconto County	142	67.7	57.0	80.2	111	53.2	43.8	64.5
Oneida County	194	74.3	64.2	86.3	132	51.1	42.7	61.4
Outagamie County	449	63.2	57.5	69.3	350	49.3	44.2	54.8
Ozaukee County	224	52.3	45.6	59.8	178	41.8	35.8	48.5
Pepin County	32	72.4	49.1	105.3	19	42.7	25.5	69.9
Pierce County	69	48.0	37.3	60.8	67	45.9	35.5	58.5
Polk County	140	58.2	48.9	69.0	130	54.2	45.3	64.7
Portage County	172	57.8	49.5	67.2	144	48.2	40.7	56.8
Price County	78	71.6	56.5	91.3	48	43.3	31.8	59.5
Racine County	715	76.7	71.2	82.6	509	54.6	50.0	59.6
Richland County	47	41.7	30.5	56.4	47	41.1	30.1	55.6
Rock County	625	81.2	75.0	87.9	461	59.9	54.6	65.7
Rusk County	73	75.6	59.1	96.4	51	52.4	38.8	70.3
St Croix County	127	49.1	40.9	58.6	125	48.5	40.3	57.9
Sauk County	175	57.6	49.3	66.9	143	46.7	39.3	55.2
Sawyer County	76	67.7	53.2	86.3	63	55.3	42.4	72.3
Shawano County	167	65.3	55.7	76.4	118	45.8	37.8	55.2
Sheboygan County	356	59.1	53.1	65.7	246	40.3	35.4	45.7
Taylor County	71	63.1	49.2	80.2	45	38.8	28.3	52.7
Trempealeau County	69	41.7	32.3	53.5	52	30.4	22.6	40.6
Vernon County	123	70.4	58.4	84.7	80	44.6	35.3	56.3
Vilas County	159	89.2	75.6	106.1	112	62.5	51.3	77.1
Walworth County	318	67.9	60.6	75.9	229	48.6	42.5	55.4
Washburn County	70	63.2	49.2	81.6	55	49.2	37.0	65.8
Washington County	340	61.5	55.1	68.5	244	44.5	39.1	50.5
Waukesha County	1,149	64.1	60.4	67.9	810	45.4	42.3	48.7
Waupaca County	213	66.5	57.8	76.4	171	52.0	44.4	60.7
Waushara County	115	70.4	58.0	85.6	89	53.8	43.1	67.3
Winnebago County	526	68.1	62.4	74.2	379	48.7	43.9	53.9
Wood County	309	71.4	63.6	80.0	186	41.9	36.1	48.6

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 10: Melanoma of the Skin

Incidence

From 1998 through 2002, approximately 730 Wisconsin residents each year were diagnosed with melanoma of the skin (Table 10.1).

Melanoma incidence increased with age. The highest age-specific incidence rate was found among males aged 80-84 and females aged 70-74 (Figure 10.3).

Unlike many cancers, melanoma incidence rates increased during the 1998-2002 period, with an average annual percent change of 9.9 percent for women and 5.6 percent for men (Table 10.1).

In Wisconsin, 73 percent of melanomas were diagnosed at the local stage, and 11 percent at the regional or distant stage. Sixteen percent were not staged (Figure 10.4).

Wisconsin melanoma incidence rates for both sexes were lower than national incidence rates during 1998-2002 (Figure 10.1).

Mortality

The melanoma mortality rate among males for the 1998-2002 period was over the twice the female rate (3.8 compared to 1.6) (Table 10.2).

During 1998-2002, the female mortality rate decreased by an annual average of 5.3 percent, while the male mortality rate increased annually by 0.9 percent (Table 10.2).

Wisconsin mortality rates from melanoma were similar to national mortality rates (Figure 10.2).

Table 10.1. Melanoma of the Skin Incidence: Number of Cases, Age-Adjusted Rates, Average Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	410	16.4	5.6%	324	11.4	9.9%	734	13.5	7.8%
1998	349	14.5	N/A	258	9.2	N/A	607	11.4	N/A
1999	362	14.8	N/A	281	10.0	N/A	643	11.9	N/A
2000	438	17.5	N/A	329	11.5	N/A	767	14.1	N/A
2001	447	17.6	N/A	375	13.0	N/A	822	14.9	N/A
2002	453	17.6	N/A	377	13.0	N/A	830	14.9	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

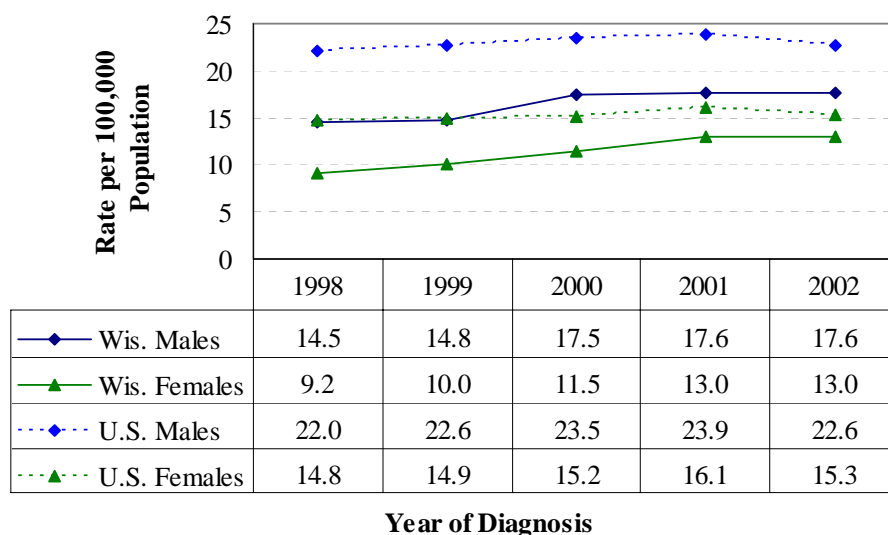
Table 10.2. Melanoma of the Skin Mortality: Number of Deaths, Age-Adjusted Rates, Average Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	92	3.8	0.9%	50	1.6	-5.3%	142	2.6	-1.3%
1998	91	3.9	N/A	52	1.7	N/A	143	2.6	N/A
1999	90	3.8	N/A	52	1.7	N/A	142	2.6	N/A
2000	81	3.4	N/A	53	1.6	N/A	134	2.4	N/A
2001	95	3.8	N/A	53	1.7	N/A	148	2.6	N/A
2002	101	4.0	N/A	40	1.2	N/A	141	2.5	N/A

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

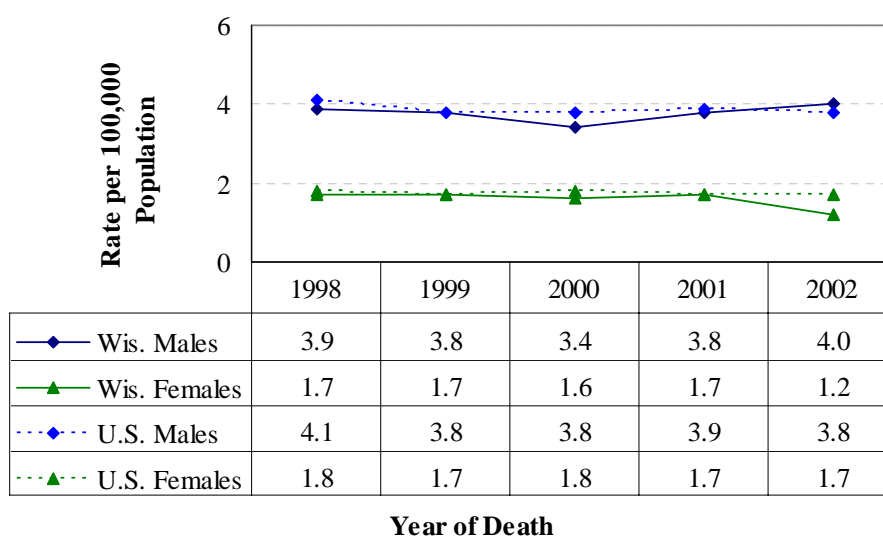
Figure 10.1. Melanoma of the Skin, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

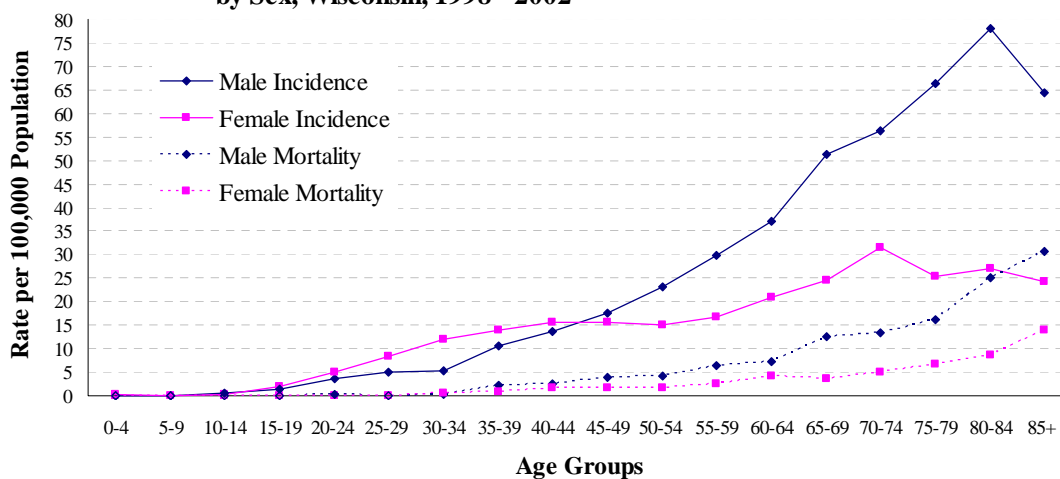
Figure 10.2. Melanoma of the Skin, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

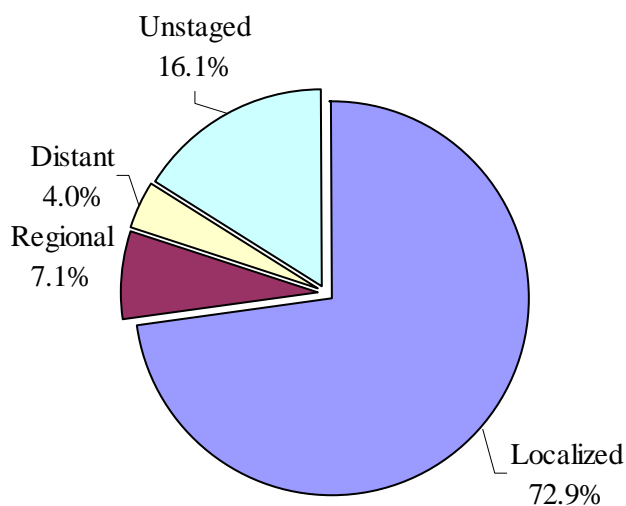
Figure 10.3. Melanoma of the Skin, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

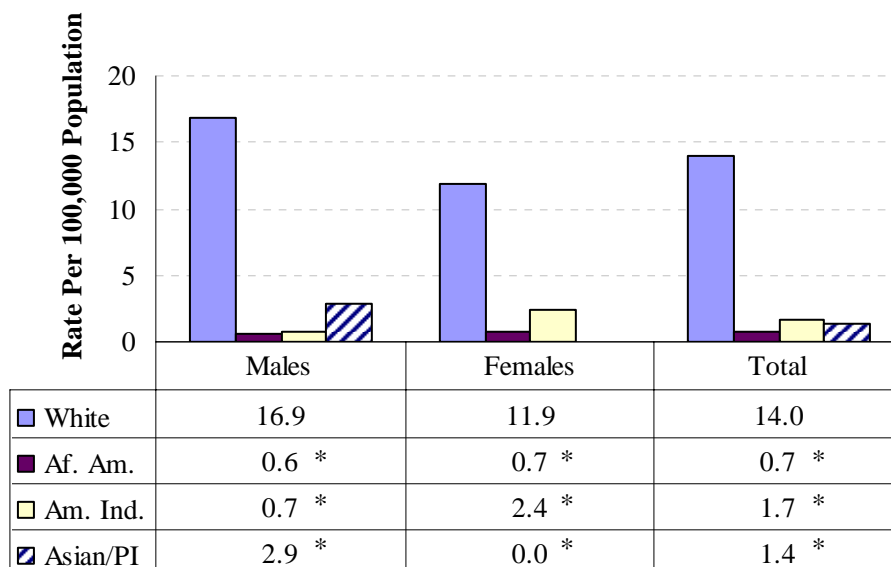
Figure 10.4. Melanoma of the Skin, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 10.5. Melanoma of the Skin, Age-Adjusted Incidence Rates, by Race and Sex, Wisconsin, 1998 - 2002

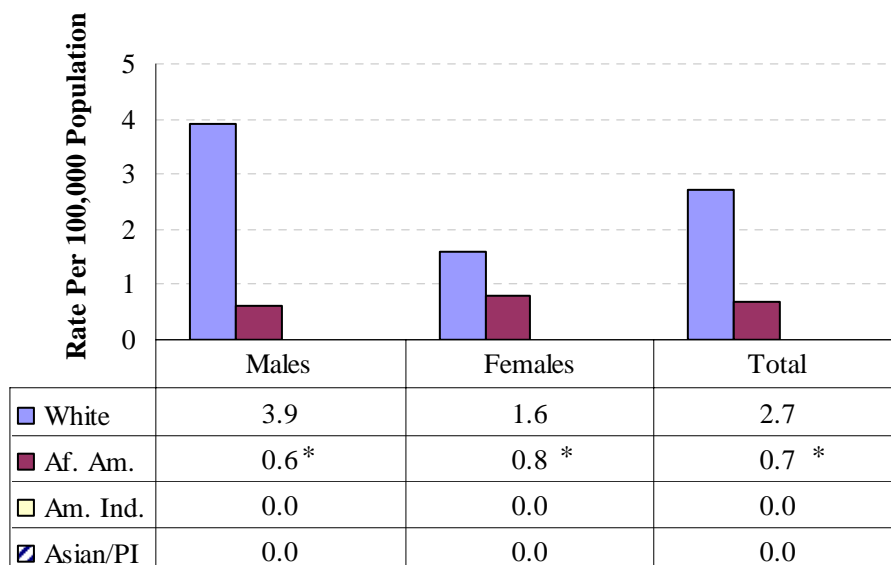


Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 10.6. Melanoma of the Skin, Age-Adjusted Mortality Rates, by Race and Sex, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 10.3. Melanoma of the Skin Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	8	5.9	2.4	14.1	0	0.0	0.0	6.4
Ashland County	10	11.0	5.2	21.0	6	5.2	1.9	12.8
Barron County	15	5.7	3.2	9.9	6	2.4	0.9	5.6
Bayfield County	8	10.0	4.2	22.4	4	4.5	1.2	14.6
Brown County	185	17.0	14.7	19.7	25	2.4	1.6	3.6
Buffalo County	8	9.9	4.3	21.0	4	5.0	1.3	14.5
Burnett County	10	8.8	4.1	18.6	5	4.4	1.4	12.9
Calumet County	29	15.2	10.1	22.0	11	6.3	3.1	11.3
Chippewa County	25	8.6	5.6	12.9	5	1.7	0.5	4.1
Clark County	19	11.0	6.6	17.5	6	3.3	1.2	7.6
Columbia County	35	12.7	8.9	17.9	13	4.4	2.4	7.9
Crawford County	9	10.1	4.5	20.3	2	1.7	0.2	8.5
Dane County	320	16.1	14.4	18.0	49	2.7	2.0	3.5
Dodge County	58	12.9	9.8	16.7	16	3.3	1.9	5.5
Door County	35	19.9	13.8	28.7	5	2.7	0.8	7.8
Douglas County	17	7.4	4.3	12.0	6	2.5	0.9	5.8
Dunn County	9	5.1	2.3	9.8	7	3.8	1.5	8.0
Eau Claire County	29	6.6	4.4	9.6	9	2.0	0.9	3.8
Florence County	2	7.2	0.9	35.1	0	0.0	0.0	25.4
Fond du Lac County	98	19.2	15.6	23.5	16	3.1	1.8	5.2
Forest County	5	8.7	2.6	23.2	0	0.0	0.0	10.4
Grant County	33	12.7	8.7	18.1	4	1.3	0.3	3.9
Green County	13	7.7	4.0	13.6	4	2.2	0.6	6.2
Green Lake County	20	18.5	11.1	29.8	3	2.6	0.5	9.2
Iowa County	19	16.1	9.6	25.7	5	4.2	1.4	10.7
Iron County	7	13.9	5.1	41.8	1	1.5	0.0	26.9
Jackson County	4	4.0	1.1	11.1	1	1.1	0.0	7.0
Jefferson County	46	12.1	8.8	16.2	14	3.7	2.0	6.3
Juneau County	9	6.6	3.0	13.4	3	2.3	0.5	7.6
Kenosha County	55	7.8	5.8	10.1	21	3.0	1.8	4.6
Kewaunee County	13	12.4	6.6	21.7	3	2.2	0.4	7.7
La Crosse County	85	16.5	13.2	20.5	16	3.0	1.7	5.0
Lafayette County	8	8.9	3.8	18.7	2	2.3	0.3	9.9
Langlade County	13	9.5	5.0	17.7	6	3.9	1.4	10.2
Lincoln County	19	11.4	6.8	18.3	5	2.8	0.9	7.3
Manitowoc County	73	16.3	12.8	20.7	10	2.2	1.0	4.2
Marathon County	59	9.1	6.9	11.8	13	2.0	1.0	3.4

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	23	8.3	5.2	13.0	10	3.6	1.7	7.3
Marquette County	20	21.3	12.9	34.6	2	1.7	0.2	9.3
Menominee County	2	8.7	1.0	75.7	0	0.0	0.0	67.3
Milwaukee County	531	11.5	10.6	12.6	87	1.9	1.5	2.3
Monroe County	27	12.7	8.3	18.7	4	1.8	0.5	5.0
Oconto County	22	11.3	7.0	17.6	8	3.8	1.6	8.1
Oneida County	31	13.3	9.0	19.7	9	3.8	1.7	8.3
Outagamie County	123	15.9	13.2	19.0	25	3.4	2.2	5.0
Ozaukee County	77	17.8	14.0	22.5	13	2.9	1.5	5.2
Pepin County	2	6.0	0.7	24.1	1	2.7	0.1	18.8
Pierce County	14	8.6	4.6	14.7	5	3.0	1.0	7.3
Polk County	19	8.0	4.8	13.0	5	2.0	0.7	5.3
Portage County	24	7.8	5.0	11.7	2	0.7	0.1	2.5
Price County	10	10.2	4.8	21.1	4	3.5	0.9	12.6
Racine County	129	13.6	11.4	16.2	24	2.5	1.6	3.8
Richland County	11	10.8	5.3	20.3	2	1.9	0.2	8.4
Rock County	107	14.0	11.4	16.9	19	2.5	1.5	3.9
Rusk County	11	11.0	5.4	21.5	2	2.1	0.3	9.9
St Croix County	13	4.4	2.3	7.7	5	1.9	0.6	4.6
Sauk County	25	8.5	5.5	12.8	9	3.0	1.4	5.9
Sawyer County	7	6.8	2.7	16.3	3	2.8	0.6	10.9
Shawano County	25	10.1	6.5	15.4	9	3.6	1.6	7.3
Sheboygan County	117	20.1	16.6	24.2	15	2.5	1.4	4.2
Taylor County	10	9.7	4.6	18.5	0	0.0	0.0	4.7
Trempealeau County	21	14.6	8.9	22.9	3	1.8	0.4	6.5
Vernon County	20	13.5	8.1	21.5	3	2.2	0.5	7.3
Vilas County	25	15.2	9.5	24.9	5	3.6	1.1	11.0
Walworth County	80	17.3	13.7	21.6	17	3.6	2.1	5.9
Washburn County	8	7.4	3.1	16.9	0	0.0	0.0	7.4
Washington County	100	17.0	13.8	20.8	13	2.3	1.2	4.0
Waukesha County	385	20.7	18.7	23.0	54	2.9	2.2	3.9
Waupaca County	43	14.6	10.5	19.9	9	2.8	1.3	5.8
Waushara County	17	12.6	7.2	21.4	4	2.6	0.7	8.4
Winnebago County	120	15.4	12.7	18.4	24	3.0	1.9	4.5
Wood County	60	14.9	11.3	19.2	7	1.5	0.6	3.4

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 11: Non-Hodgkin's Lymphoma

Incidence

From 1998 through 2002, more than 1,000 cases of non-Hodgkin's lymphoma were diagnosed each year in Wisconsin, with the age-adjusted incidence rate higher among males (22.8 per 100,000 population) than females (16.3 per 100,000) (Table 11.1).

Seventeen percent of non-Hodgkin's lymphomas were diagnosed at the local stage. Four percent of cases had regional disease and 75 percent had distant disease at the time of diagnosis (Figure 11.4).

Wisconsin age-adjusted incidence rates for non-Hodgkin's lymphoma were similar to national rates (Figure 11.1).

American Indians had the highest age-adjusted incidence rate of non-Hodgkin's lymphoma (20.7 per 100,000) and African Americans the lowest (15.5 per 100,000) (Figure 11.5).

Mortality

From 1998 through 2002, approximately 480 Wisconsin residents died each year from non-Hodgkin's lymphoma (Table 11.2).

The Wisconsin mortality rate for non-Hodgkin's lymphoma declined by 24 percent from 1998 to 2002 (from 9.6 per 100,000 to 7.3 per 100,000). The average annual percent decrease was 7 percent (Table 11.2).

Consistent with incidence rates, the mortality rate for this cancer was highest among American Indians (11 per 100,000) (Figure 11.6).

Table 11.1. Non-Hodgkin's Lymphoma Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	555	22.8	-2.5%	503	16.3	1.0%	1,058	19.2	-0.6%
1998	563	24.0	N/A	487	16.1	N/A	1,050	19.4	N/A
1999	580	24.3	N/A	498	16.4	N/A	1,078	19.8	N/A
2000	526	21.8	N/A	496	16.1	N/A	1,022	18.5	N/A
2001	552	22.4	N/A	500	16.3	N/A	1,052	18.9	N/A
2002	553	22.0	N/A	536	17.0	N/A	1,089	19.3	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

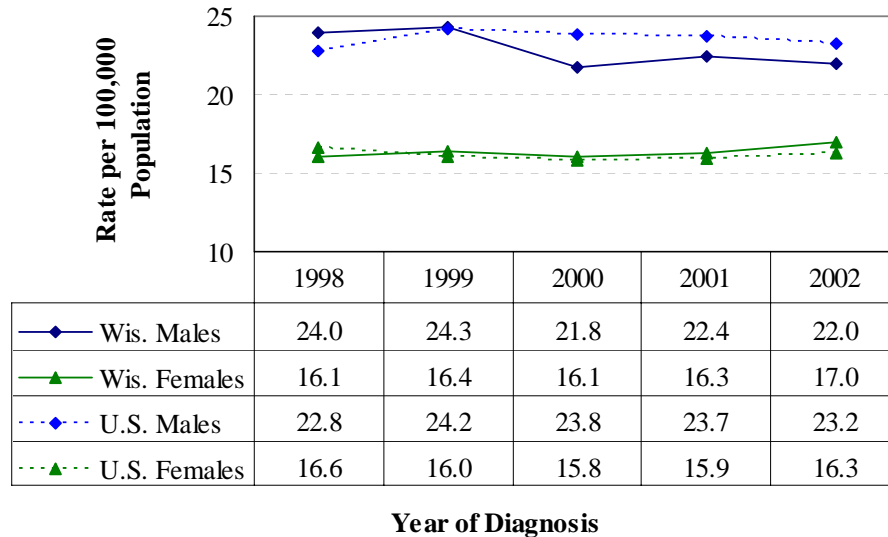
Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Table 11.2. Non-Hodgkin's Lymphoma Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	255	11.0	-7.0%	226	6.8	-7.4%	480	8.5	-7.1%
1998	273	12.2	N/A	258	7.9	N/A	531	9.6	N/A
1999	285	12.4	N/A	234	7.3	N/A	519	9.4	N/A
2000	251	11.0	N/A	236	7.1	N/A	487	8.6	N/A
2001	246	10.5	N/A	192	5.6	N/A	438	7.7	N/A
2002	218	9.2	N/A	208	6.1	N/A	426	7.3	N/A

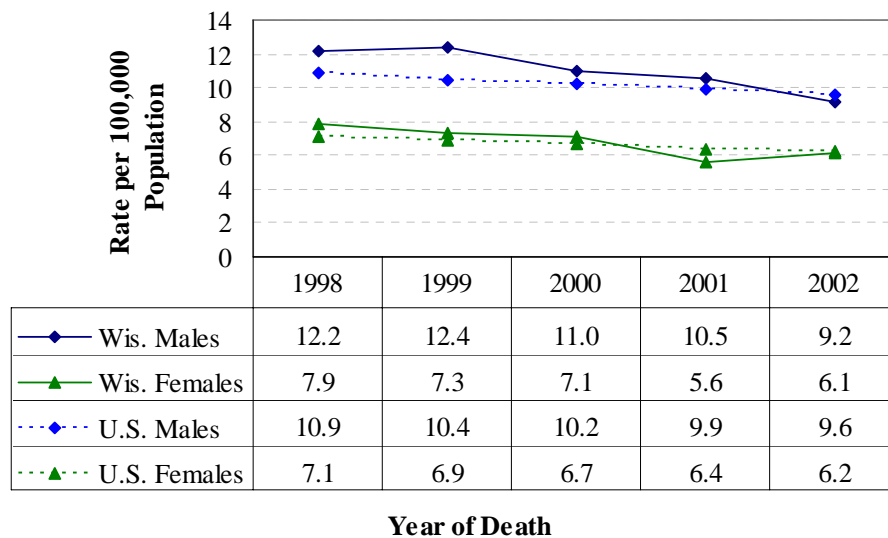
Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Figure 11.1. Non-Hodgkin's Lymphoma, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

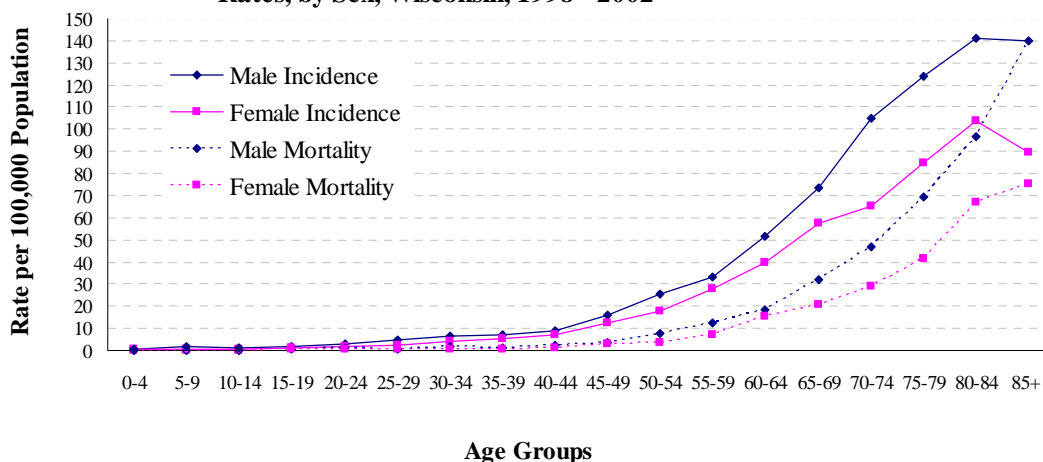
Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

Figure 11.2. Non-Hodgkin's Lymphoma, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 1998 - 2002

Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

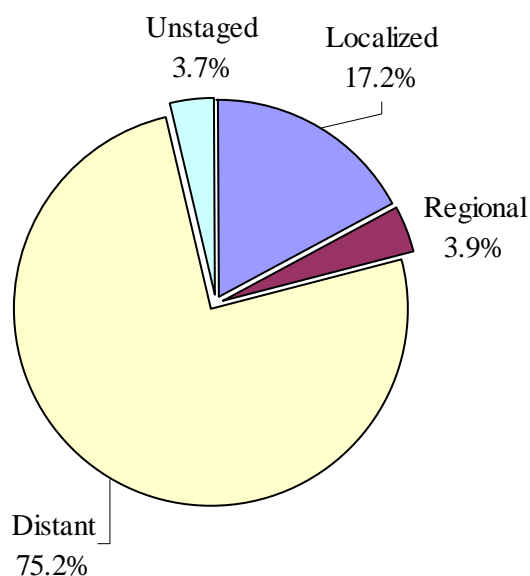
Figure 11.3. Non-Hodgkin's Lymphoma, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

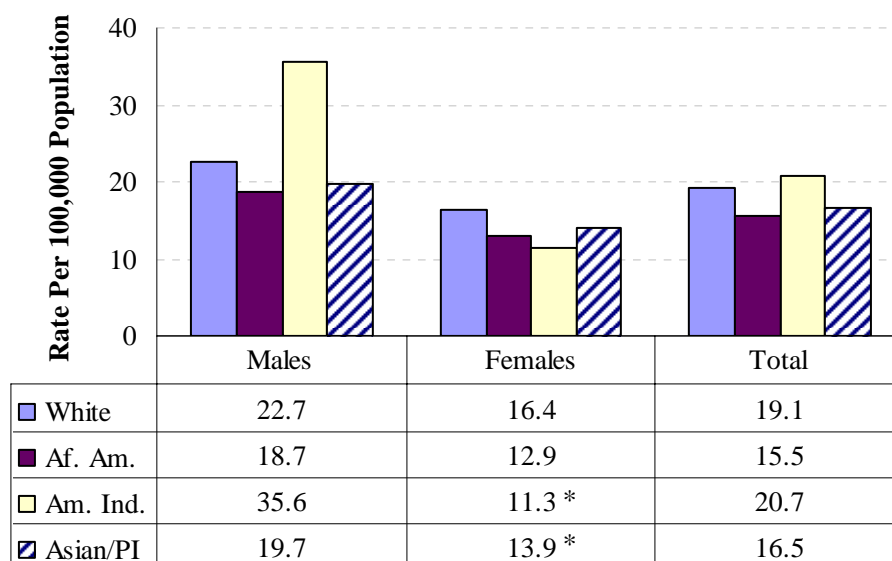
Figure 11.4. Non-Hodgkin's Lymphoma, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 11.5. Non-Hodgkin's Lymphoma, Age-Adjusted Incidence Rates, by Race and Sex, Wisconsin, 1998-2002

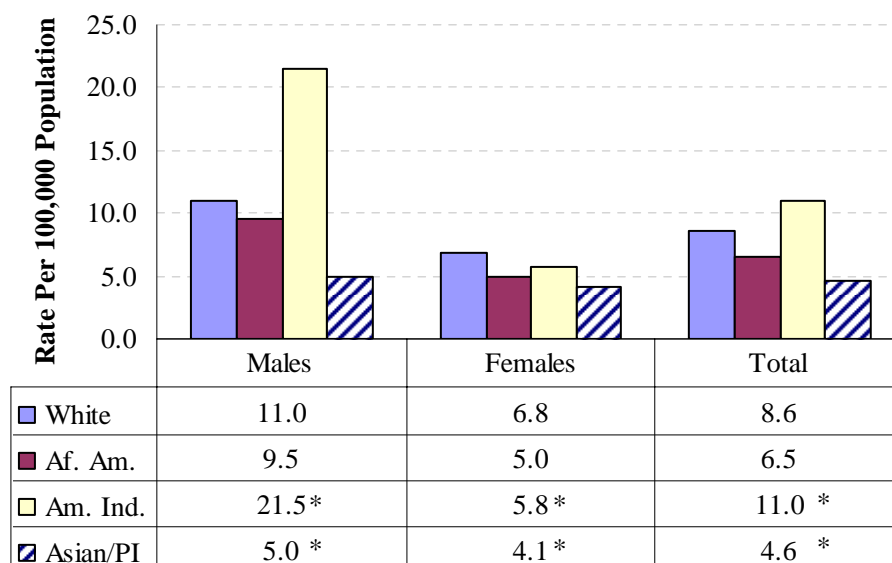


Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 11.6. Non-Hodgkin's Lymphoma, Age-Adjusted Mortality Rates, by Race and Sex, Wisconsin, 1998-2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 11.3. Non-Hodgkin's Lymphoma Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	21	14.5	8.8	24.2	10	7.3	3.4	15.5
Ashland County	28	29.9	19.7	44.1	8	7.5	3.1	16.1
Barron County	39	14.1	10.0	19.7	25	8.5	5.5	13.0
Bayfield County	12	12.1	6.3	24.0	12	12.9	6.6	25.1
Brown County	188	18.3	15.8	21.1	94	9.3	7.5	11.4
Buffalo County	14	17.2	9.4	30.2	8	9.1	3.9	19.6
Burnett County	15	13.7	7.6	24.7	12	11.3	5.6	22.3
Calumet County	18	9.7	5.8	15.5	11	6.4	3.2	11.5
Chippewa County	66	21.4	16.5	27.4	27	8.2	5.4	12.2
Clark County	52	28.0	20.8	37.2	18	9.2	5.4	15.1
Columbia County	63	22.1	17.0	28.5	25	8.1	5.2	12.3
Crawford County	22	21.0	13.1	33.0	7	6.6	2.6	15.1
Dane County	355	19.9	17.9	22.1	148	8.6	7.2	10.1
Dodge County	93	20.0	16.1	24.6	51	10.6	7.9	14.1
Door County	48	24.3	17.9	33.2	14	6.7	3.7	12.5
Douglas County	37	15.2	10.7	21.2	14	5.4	2.9	9.4
Dunn County	18	9.4	5.6	15.1	6	2.9	1.0	6.7
Eau Claire County	58	12.9	9.8	16.7	25	5.5	3.5	8.2
Florence County	3	9.8	2.0	38.2	2	5.7	0.7	32.3
Fond du Lac County	114	21.8	17.9	26.3	42	7.8	5.6	10.7
Forest County	9	15.6	6.9	32.0	7	11.1	4.3	25.7
Grant County	54	19.6	14.7	25.9	24	8.1	5.2	12.5
Green County	34	18.5	12.8	26.3	13	6.8	3.6	12.2
Green Lake County	25	18.7	12.1	29.0	13	8.8	4.7	16.6
Iowa County	10	8.3	4.0	16.0	4	3.3	0.9	9.4
Iron County	9	18.8	8.1	47.7	4	5.8	1.6	31.2
Jackson County	18	17.8	10.5	28.8	9	8.5	3.9	17.0
Jefferson County	68	17.9	13.9	22.7	40	10.5	7.5	14.3
Juneau County	32	20.9	14.3	30.3	15	9.4	5.2	16.3
Kenosha County	128	18.3	15.2	21.7	64	9.2	7.1	11.8
Kewaunee County	30	25.6	17.2	37.3	16	13.9	7.9	23.4
La Crosse County	107	20.6	16.8	24.9	46	8.6	6.3	11.5
Lafayette County	10	10.4	5.0	20.5	7	6.8	2.7	15.6
Langlade County	25	16.3	10.5	25.4	15	9.8	5.5	17.6
Lincoln County	45	25.9	18.8	35.2	15	8.5	4.7	14.6
Manitowoc County	86	17.7	14.1	22.1	47	9.1	6.7	12.3
Marathon County	122	18.9	15.7	22.6	56	8.5	6.4	11.1

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	43	15.6	11.2	21.5	29	9.8	6.5	14.6
Marquette County	20	18.3	11.0	30.3	8	7.5	3.2	16.9
Menominee County	4	20.2	5.0	89.5	2	12.8	1.4	82.1
Milwaukee County	903	19.5	18.2	20.8	415	8.7	7.9	9.6
Monroe County	46	20.9	15.3	28.1	24	10.6	6.8	16.0
Oconto County	30	14.6	9.8	21.4	19	9.2	5.5	14.9
Oneida County	70	29.8	23.1	38.5	27	10.6	6.9	16.4
Outagamie County	155	21.3	18.0	24.9	64	8.9	6.8	11.4
Ozaukee County	94	21.5	17.4	26.6	48	11.4	8.4	15.3
Pepin County	7	17.1	6.8	38.3	4	9.0	2.5	27.1
Pierce County	27	17.8	11.7	26.1	14	9.5	5.1	16.0
Polk County	46	19.4	14.2	26.3	18	7.0	4.1	11.5
Portage County	62	20.4	15.7	26.3	23	7.6	4.8	11.5
Price County	17	15.8	9.1	27.6	12	10.4	5.3	21.0
Racine County	174	18.6	15.9	21.6	77	8.2	6.5	10.3
Richland County	11	10.4	5.1	19.7	14	12.0	6.5	21.3
Rock County	148	19.2	16.3	22.6	69	8.9	6.9	11.3
Rusk County	20	19.8	12.0	32.3	14	11.2	6.1	20.9
St Croix County	38	13.5	9.5	18.7	20	7.2	4.4	11.3
Sauk County	58	19.0	14.4	24.8	26	8.3	5.4	12.4
Sawyer County	25	23.8	15.3	36.9	10	9.6	4.6	19.8
Shawano County	48	19.9	14.6	26.9	21	8.1	4.9	12.8
Sheboygan County	91	14.8	11.9	18.3	46	7.4	5.4	9.9
Taylor County	24	21.7	13.8	32.9	8	6.3	2.7	13.4
Trempealeau County	20	12.8	7.8	20.5	14	7.5	4.0	13.6
Vernon County	29	16.9	11.2	25.2	19	9.9	5.9	16.3
Vilas County	36	21.5	14.8	31.9	12	6.2	3.2	13.6
Walworth County	93	19.5	15.8	24.0	41	8.5	6.1	11.6
Washburn County	26	23.9	15.4	37.1	12	10.9	5.6	21.4
Washington County	117	20.8	17.2	25.0	49	8.9	6.6	11.8
Waukesha County	374	20.6	18.6	22.8	133	7.5	6.3	8.9
Waupaca County	53	17.6	13.1	23.4	35	10.7	7.4	15.3
Waushara County	29	18.4	12.3	27.7	7	4.4	1.8	10.7
Winnebago County	177	22.6	19.4	26.2	76	9.4	7.4	11.8
Wood County	100	22.9	18.6	28.1	37	7.6	5.3	10.7

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 12: Cancer of the Ovary

Incidence

During 1998-2002, cancer of the ovary was diagnosed at the local stage of disease in 23 percent of cases, and at a regional or distant stage in 67 percent of cases (Figure 12.4).

During this five-year period, ovarian cancer was the sixth most frequently diagnosed cancer among women in Wisconsin (Figure 1.8).

The highest age-adjusted ovarian cancer incidence rate by race was that of Asian/Pacific Islanders (22.1 per 100,000 females) and the lowest was among African Americans (8.2 per 100,000 females) (Figure 12.5).

Mortality

Ovarian cancer was the fifth leading cause of cancer mortality for Wisconsin women (Figure 1.8).

Ovarian cancer was the second leading cause of cancer mortality among women aged 15-24 and the fourth leading cause among women aged 25-64 (Table 1.5). It was the fifth leading cause of cancer deaths among women age 65 and older.

During 1998-2002, an average of 279 Wisconsin women died each year from ovarian cancer (Table 12.1). The mortality rate increased with age until age 80-84 (Figure 12.3).

Wisconsin ovarian cancer mortality rates were similar to U.S. rates during 1998-2002 (Figure 12.2).

Table 12.1. Ovarian Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998 - 2002

Year of Diagnosis	Number of Cases	Age-Adj. Rate	APC
Annual Average 1998-2002	468	15.9	-5.2%
1998	518	17.9	N/A
1999	454	15.7	N/A
2000	479	16.3	N/A
2001	485	16.3	N/A
2002	402	13.4	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

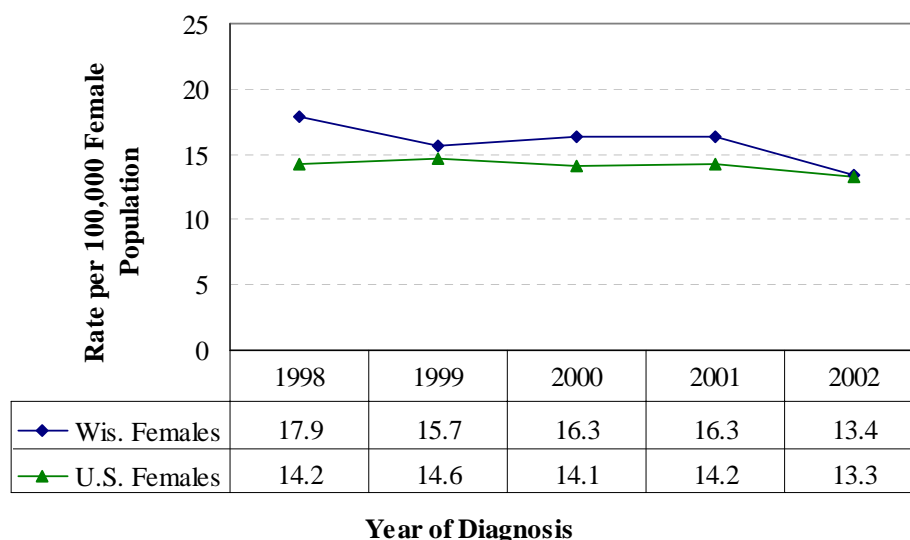
Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Table 12.2. Ovarian Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998 - 2002

Year of Death	Number of Deaths	Age-Adj. Rate	APC
Annual Average 1998-2002	279	9.0	0.3%
1998	288	9.4	N/A
1999	250	8.2	N/A
2000	294	9.5	N/A
2001	262	8.3	N/A
2002	299	9.5	N/A

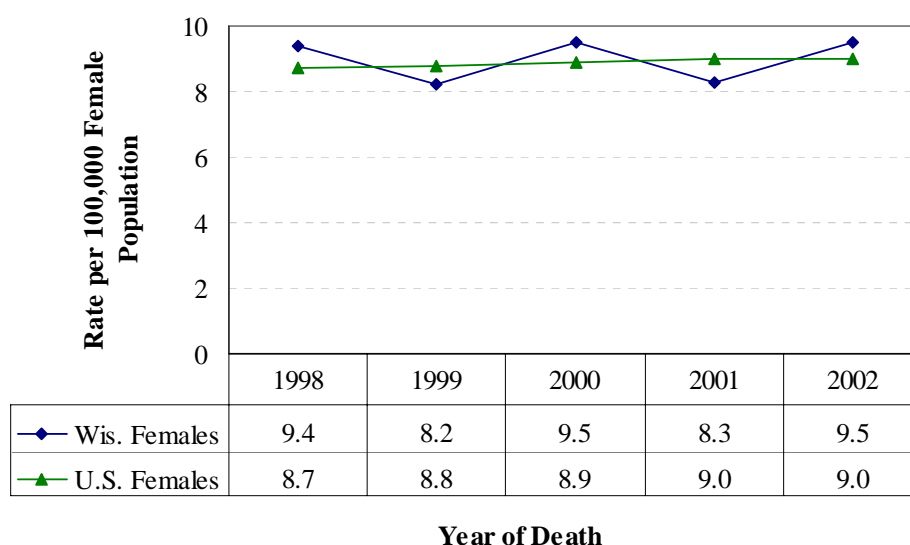
Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Figure 12.1. Ovarian Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 1998 - 2002

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

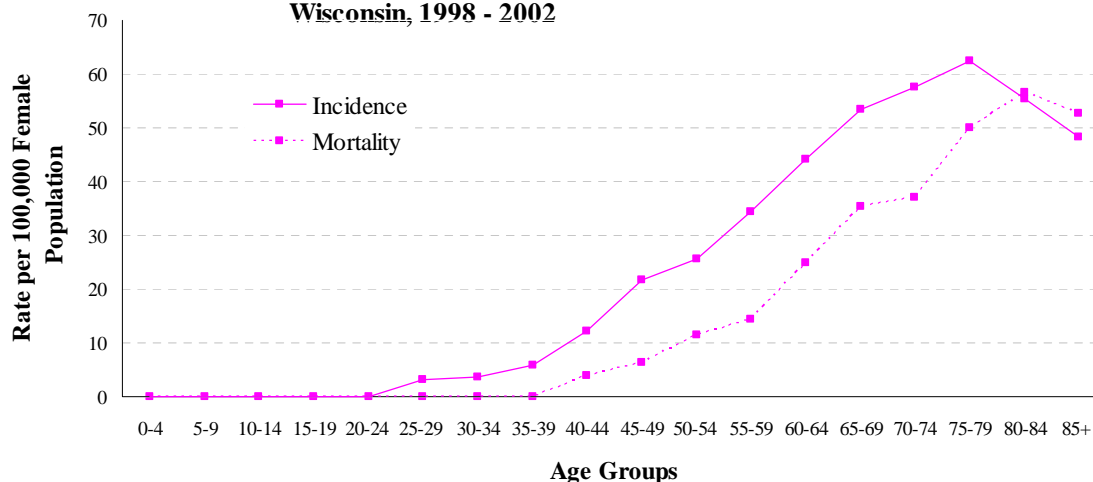
Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

Figure 12.2. Ovarian Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 1998 - 2002

Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

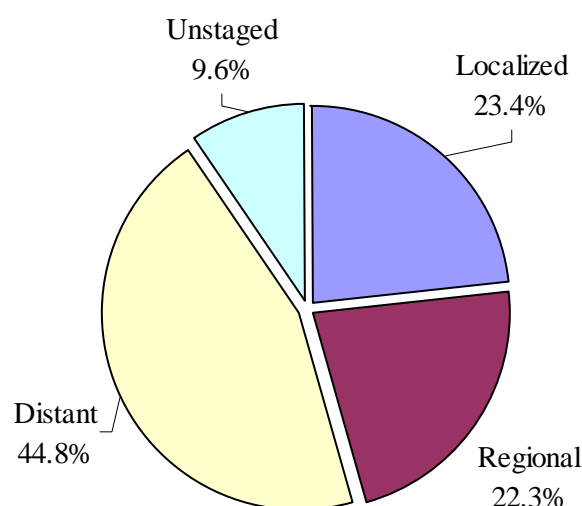
Figure 12.3. Ovarian Cancer, Age-Specific Incidence and Mortality Rates, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 female population (1998-2002) for each age group.

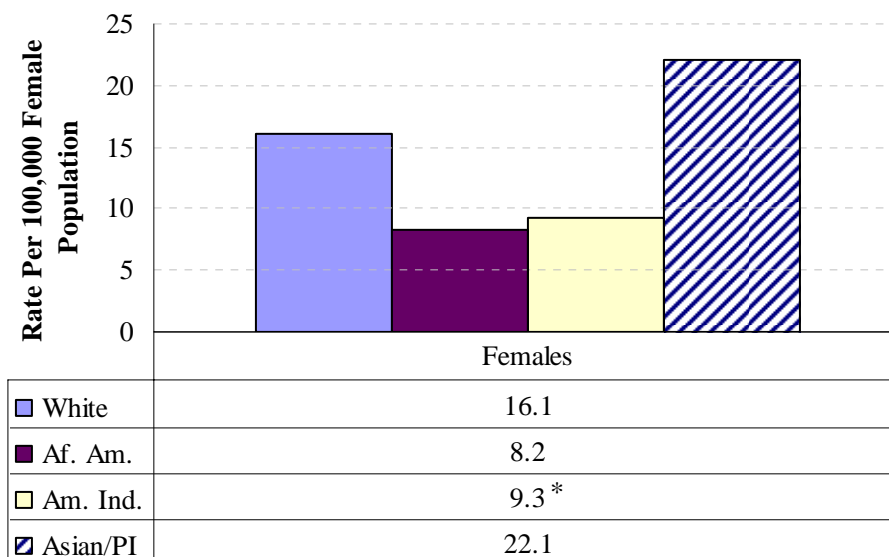
Figure 12.4. Ovarian Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 12.5. Ovarian Cancer, Age-Adjusted Incidence Rates, by Race, Wisconsin, 1998 - 2002

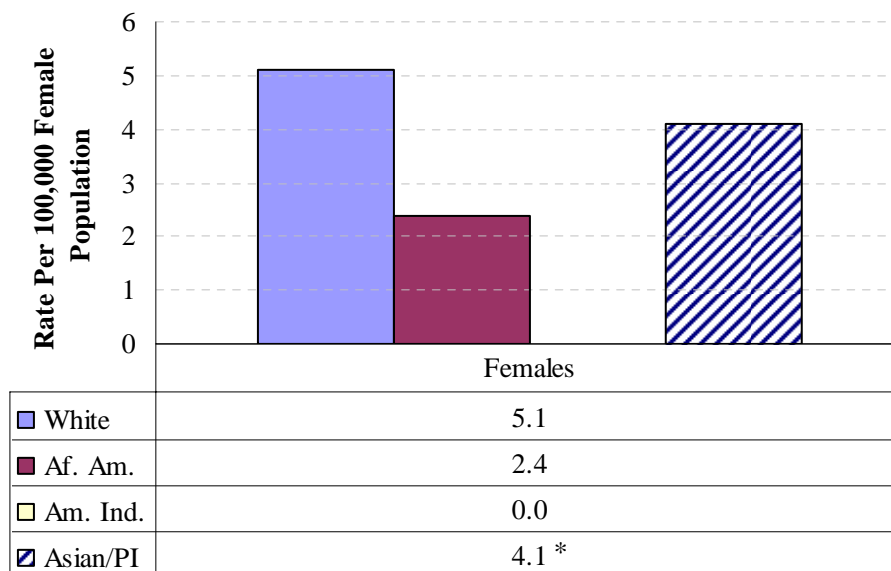


Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 female population in each racial group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 12.6. Ovarian Cancer, Age-Adjusted Mortality Rates, by Race, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 female population in each racial group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 12.3. Ovarian Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	3	5.2	1.0	20.1	1	0.6	0.0	7.0
Ashland County	9	20.1	9.1	39.8	5	5.2	1.7	13.2
Barron County	16	11.2	6.3	19.3	10	3.4	1.6	6.8
Bayfield County	6	12.9	4.7	34.6	7	7.3	2.9	18.1
Brown County	88	15.5	12.4	19.2	43	4.1	3.0	5.6
Buffalo County	4	12.7	3.3	35.9	1	1.1	0.0	8.8
Burnett County	6	9.8	3.4	28.1	5	4.3	1.4	12.8
Calumet County	18	17.9	10.5	28.8	9	5.1	2.3	9.8
Chippewa County	30	19.2	12.9	27.9	17	5.4	3.1	8.8
Clark County	12	12.4	6.3	23.1	8	3.9	1.6	8.4
Columbia County	22	14.2	8.8	22.3	16	5.4	3.1	9.1
Crawford County	7	12.5	4.9	30.1	3	2.8	0.6	10.1
Dane County	190	19.1	16.5	22.1	87	5.1	4.1	6.3
Dodge County	38	16.5	11.6	23.0	21	4.6	2.8	7.2
Door County	16	19.1	10.5	34.0	12	6.4	3.3	12.4
Douglas County	16	12.5	7.0	21.0	11	4.6	2.3	8.4
Dunn County	11	11.4	5.6	21.0	10	5.6	2.7	10.5
Eau Claire County	28	10.3	6.7	15.2	21	4.6	2.9	7.1
Florence County	4	25.8	6.9	87.9	3	8.6	1.8	36.1
Fond du Lac County	50	18.4	13.6	24.5	37	7.1	5.0	9.9
Forest County	5	14.2	4.3	40.6	4	6.2	1.6	19.1
Grant County	19	11.6	6.8	19.3	15	5.1	2.8	8.7
Green County	13	14.2	7.4	25.5	8	4.3	1.8	9.1
Green Lake County	11	20.5	10.1	39.4	3	2.6	0.5	9.2
Iowa County	8	13.1	5.6	28.0	9	7.3	3.3	14.7
Iron County	3	9.8	2.0	58.4	2	3.3	0.4	28.8
Jackson County	9	16.8	7.5	33.9	8	7.4	3.2	15.5
Jefferson County	29	14.0	9.3	20.3	15	4.0	2.2	6.7
Juneau County	9	13.2	6.0	26.9	3	1.9	0.4	6.7
Kenosha County	56	15.1	11.4	19.6	35	5.1	3.6	7.1
Kewaunee County	10	15.1	7.1	30.1	5	4.1	1.3	10.4
La Crosse County	44	15.5	11.2	21.0	33	6.3	4.3	8.9
Lafayette County	9	20.8	9.3	42.0	7	7.8	3.1	17.3
Langlade County	6	6.9	2.5	19.7	3	1.9	0.4	7.7
Lincoln County	18	19.5	11.4	32.4	9	4.9	2.2	10.0
Manitowoc County	35	13.4	9.2	19.2	28	5.6	3.7	8.3
Marathon County	54	16.2	12.2	21.3	32	5.0	3.4	7.1

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	20	14.5	8.7	23.6	14	4.9	2.7	8.8
Marquette County	6	11.9	4.2	31.3	4	3.8	1.0	12.2
Menominee County	1	10.2	0.3	119.2	1	5.4	0.1	72.9
Milwaukee County	417	16.0	14.5	17.6	265	5.7	5.0	6.4
Monroe County	13	11.9	6.3	21.1	8	3.6	1.6	7.4
Oconto County	12	11.7	6.0	21.9	10	5.0	2.4	9.7
Oneida County	28	22.1	14.6	34.2	11	4.3	2.1	8.8
Outagamie County	61	15.5	11.8	19.9	43	5.9	4.3	7.9
Ozaukee County	32	13.6	9.3	19.6	15	3.3	1.9	5.7
Pepin County	3	14.1	2.9	50.6	3	6.8	1.4	24.2
Pierce County	10	12.1	5.7	23.1	6	3.9	1.4	8.7
Polk County	16	13.2	7.5	22.6	16	6.7	3.8	11.3
Portage County	23	14.0	8.8	21.2	12	3.9	2.0	6.9
Price County	8	13.7	5.8	33.7	5	4.1	1.3	13.0
Racine County	63	12.5	9.6	16.1	34	3.7	2.5	5.1
Richland County	13	21.9	11.3	40.5	8	7.7	3.3	16.2
Rock County	65	15.8	12.2	20.2	34	4.4	3.1	6.2
Rusk County	8	14.8	6.2	34.0	5	5.5	1.8	14.6
St Croix County	24	15.2	9.7	23.0	15	5.7	3.2	9.5
Sauk County	38	24.1	17.0	33.7	15	4.8	2.7	8.2
Sawyer County	3	6.1	1.2	23.8	4	3.8	1.0	12.2
Shawano County	24	17.8	11.3	27.8	14	5.2	2.8	9.2
Sheboygan County	66	21.6	16.6	27.7	45	7.4	5.4	10.0
Taylor County	6	9.0	3.2	22.6	4	3.2	0.9	9.4
Trempealeau County	17	18.7	10.7	32.0	12	6.7	3.4	12.7
Vernon County	10	12.5	5.9	24.8	5	2.7	0.9	7.5
Vilas County	15	20.9	11.1	40.9	4	2.9	0.7	10.0
Walworth County	49	19.6	14.5	26.2	37	7.8	5.5	10.8
Washburn County	5	9.1	2.9	27.3	4	4.0	1.1	12.9
Washington County	37	12.1	8.5	16.9	23	4.1	2.6	6.2
Waukesha County	182	18.0	15.5	20.9	88	4.9	3.9	6.0
Waupaca County	31	21.2	14.3	30.8	19	5.9	3.5	9.6
Waushara County	11	12.7	6.3	26.9	11	7.0	3.4	14.0
Winnebago County	68	16.5	12.8	21.1	37	4.8	3.3	6.6
Wood County	41	19.1	13.6	26.3	16	3.7	2.1	6.3

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 female population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 13: Cancer of the Pancreas

Incidence

In 1998-2002, an average of 644 cases of pancreatic cancer were diagnosed each year in Wisconsin (Table 13.1).

Age-adjusted incidence rates for pancreatic cancer in Wisconsin were similar to U.S. incidence rates (Figure 13.1).

The majority of pancreatic cancers (68%) were diagnosed at the later stages of disease, either regional or distant. A relatively high proportion of cases (19%) were reported as unknown in stage at the time of diagnosis (Figure 13.4).

In Wisconsin during 1998-2002, African Americans experienced the highest incidence rate of pancreatic cancer (19.4 per 100,000) and Asian/Pacific Islanders the second highest (12.5 per 100,000) (Figure 13.5).

Mortality

From 1998 through 2002, more than 600 Wisconsin residents died annually from pancreatic cancer (Table 13.2).

Males had a higher age-adjusted mortality rate (12.3 per 100,000 population) than females (9.5 per 100,000) (Table 13.2).

African Americans had the highest pancreatic cancer mortality rate (16.6 per 100,000), followed by whites (10.7 per 100,000), Asian/Pacific Islanders (9.1 per 100,000) and American Indians (6.3 per 100,000) (Figure 13.6).

During 1998-2002, county mortality rates for pancreatic cancer varied greatly, from zero (no reported deaths) in Florence and Menominee counties to 15.4 per 100,000 in Kewaunee County (Table 13.3).

Table 13.1. Pancreatic Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	310	13.0	-2.6%	333	10.3	-0.1%	644	11.6	-1.4%
1998	343	14.9	N/A	326	10.2	N/A	669	12.3	N/A
1999	303	12.8	N/A	337	10.5	N/A	640	11.7	N/A
2000	264	11.1	N/A	329	10.3	N/A	593	10.7	N/A
2001	328	13.5	N/A	334	10.3	N/A	662	11.8	N/A
2002	314	12.8	N/A	340	10.3	N/A	654	11.4	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

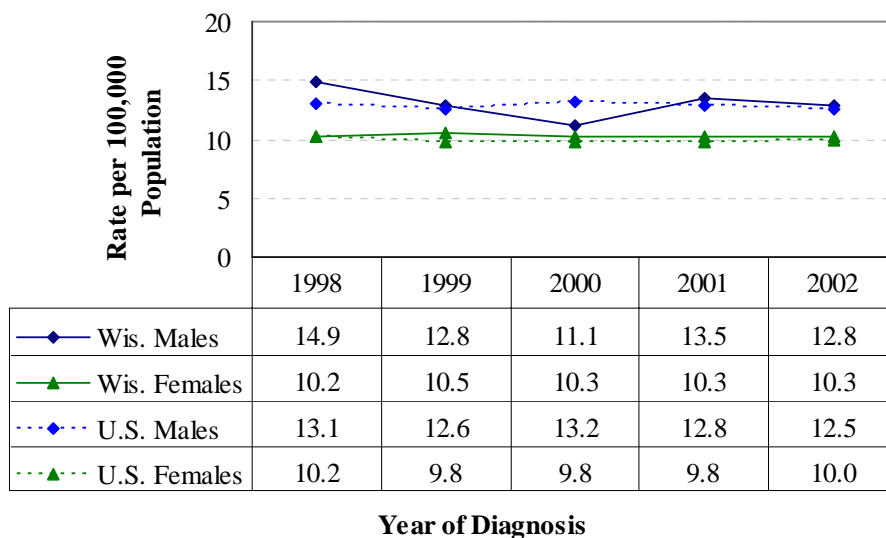
Table 13.2. Pancreatic Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	291	12.3	0.3%	312	9.5	4.1%	603	10.8	2.4%
1998	290	12.7	N/A	286	8.9	N/A	576	10.6	N/A
1999	273	11.8	N/A	303	9.3	N/A	576	10.4	N/A
2000	288	12.1	N/A	290	8.8	N/A	578	10.4	N/A
2001	287	12.0	N/A	337	10.2	N/A	624	11.0	N/A
2002	316	12.8	N/A	344	10.4	N/A	660	11.5	N/A

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

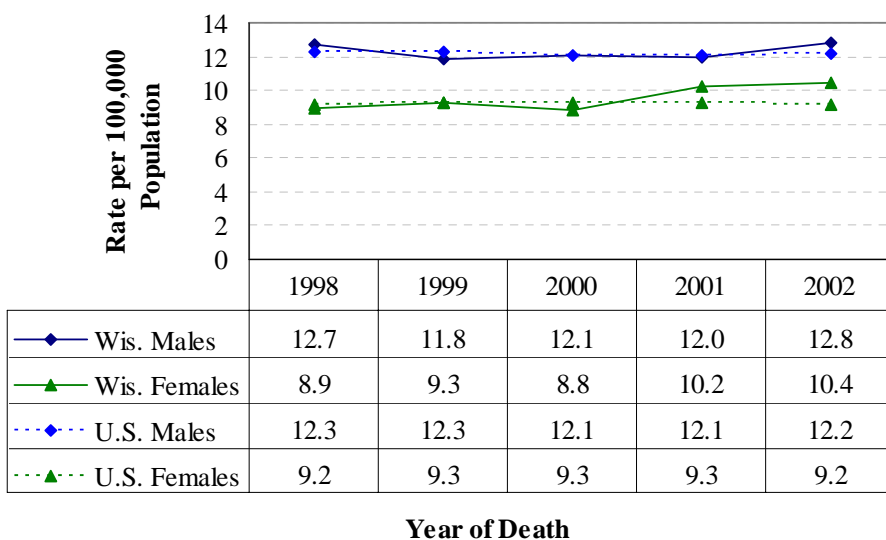
Figure 13.1. Pancreatic Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

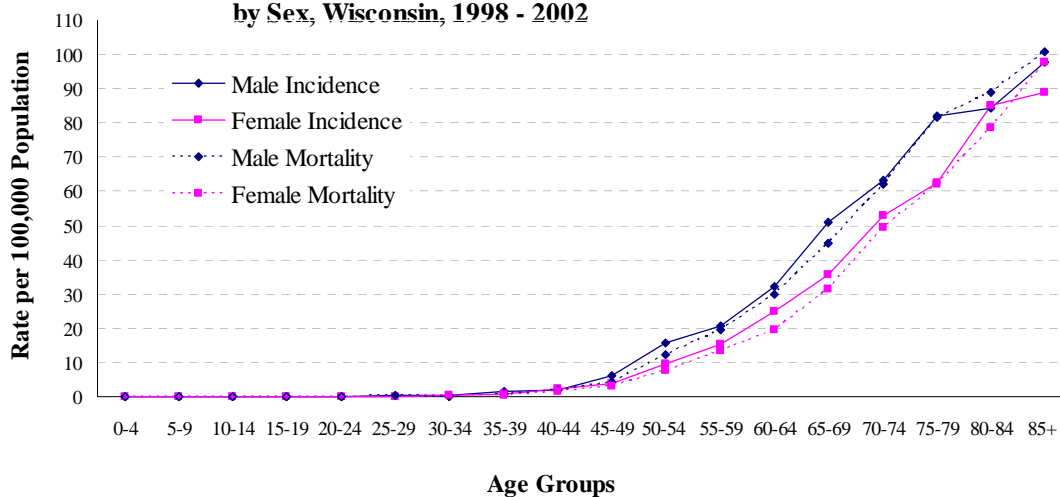
Figure 13.2. Pancreatic Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

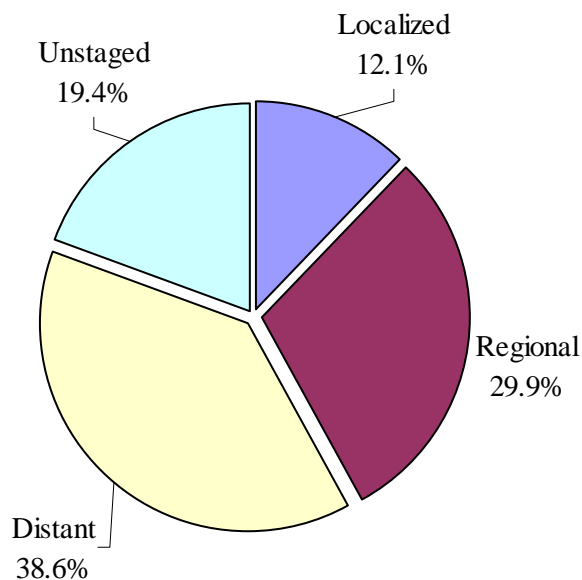
Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

Figure 13.3. Pancreatic Cancer, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



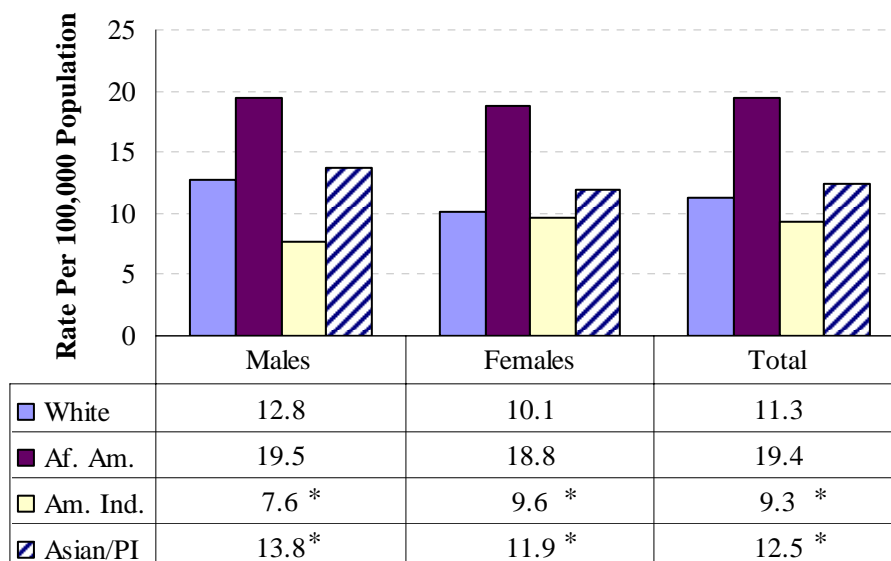
Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.
 Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

Figure 13.4. Pancreatic Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.
 Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 13.5. Pancreatic Cancer, Age-Adjusted Incidence Rates, by Race and Sex, Wisconsin, 1998 - 2002

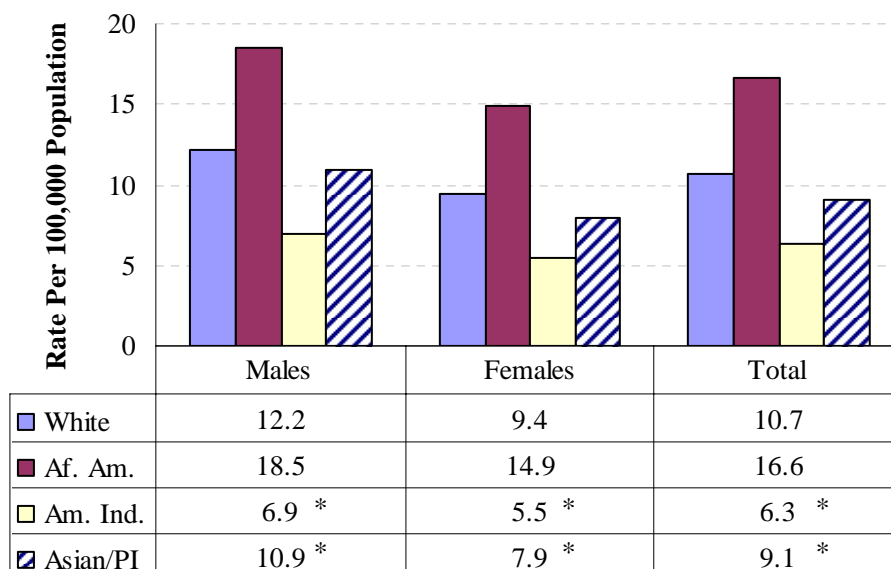


Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 13.6. Pancreatic Cancer, Age-Adjusted Mortality Rates, by Race and Sex, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 13.3. Pancreatic Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002								
	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	13	8.0	4.2	16.1	18	11.2	6.5	19.8
Ashland County	6	6.3	2.3	14.6	6	6.8	2.5	15.5
Barron County	28	9.4	6.2	14.0	34	11.3	7.8	16.2
Bayfield County	9	9.4	4.3	20.6	8	8.6	3.7	19.8
Brown County	104	10.3	8.4	12.5	106	10.6	8.7	12.8
Buffalo County	12	13.4	6.9	25.0	14	15.8	8.6	28.1
Burnett County	10	9.0	4.2	18.9	10	9.6	4.5	19.9
Calumet County	11	6.2	3.1	11.2	14	8.0	4.4	13.5
Chippewa County	30	9.5	6.4	13.8	29	9.1	6.1	13.3
Clark County	26	12.0	7.8	18.1	19	8.3	5.0	13.5
Columbia County	37	12.4	8.8	17.4	29	9.6	6.4	14.1
Crawford County	10	9.1	4.3	18.2	7	6.1	2.5	14.3
Dane County	212	12.4	10.7	14.2	183	10.7	9.2	12.4
Dodge County	51	10.7	7.9	14.1	53	10.9	8.2	14.4
Door County	20	10.0	6.1	16.5	17	8.4	4.9	14.6
Douglas County	30	12.3	8.3	17.8	31	12.5	8.5	18.1
Dunn County	24	13.6	8.7	20.4	17	9.6	5.6	15.5
Eau Claire County	46	10.2	7.4	13.6	44	9.7	7.1	13.1
Florence County	1	2.8	0.1	28.7	0	0.0	0.0	25.4
Fond du Lac County	49	9.3	6.9	12.4	46	8.6	6.3	11.6
Forest County	4	5.5	1.5	17.7	6	9.2	3.2	23.0
Grant County	32	11.0	7.5	15.9	30	10.4	7.0	15.1
Green County	14	7.3	4.0	12.8	17	8.6	5.0	14.4
Green Lake County	14	11.1	6.0	20.0	15	11.8	6.5	20.8
Iowa County	6	5.1	1.9	12.0	8	6.6	2.9	13.9
Iron County	4	7.1	1.9	33.0	2	3.3	0.4	28.8
Jackson County	11	9.8	4.9	18.6	11	9.8	4.9	18.5
Jefferson County	47	12.3	9.1	16.5	49	13.0	9.6	17.3
Juneau County	19	11.6	7.0	19.0	16	9.8	5.6	16.7
Kenosha County	92	13.4	10.8	16.4	87	12.7	10.1	15.6
Kewaunee County	28	23.9	15.8	35.2	19	15.4	9.2	24.8
La Crosse County	51	9.8	7.3	12.9	53	10.2	7.6	13.4
Lafayette County	15	15.5	8.6	26.8	14	14.4	7.8	25.4
Langlade County	22	15.8	9.8	25.1	17	12.1	7.0	20.7
Lincoln County	30	15.6	10.5	23.0	23	11.8	7.4	18.4
Manitowoc County	66	12.9	10.0	16.6	58	11.3	8.5	14.8
Marathon County	76	11.6	9.1	14.5	74	11.2	8.8	14.1

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	22	7.5	4.7	12.0	31	10.4	7.1	15.4
Marquette County	9	8.1	3.7	17.5	12	11.7	6.0	22.3
Menominee County	0	0.0	0.0	67.3	0	0.0	0.0	67.3
Milwaukee County	633	13.6	12.5	14.7	560	11.9	11.0	13.0
Monroe County	20	8.9	5.5	14.1	19	8.5	5.1	13.5
Oconto County	15	7.2	4.0	12.5	21	10.0	6.2	15.8
Oneida County	34	12.9	8.9	19.0	30	11.4	7.7	17.2
Outagamie County	94	12.9	10.4	15.8	75	10.3	8.1	12.9
Ozaukee County	65	15.3	11.8	19.7	57	13.5	10.2	17.7
Pepin County	5	11.5	3.7	30.6	7	15.1	6.0	35.0
Pierce County	15	9.8	5.5	16.4	17	11.4	6.6	18.3
Polk County	24	9.9	6.4	15.2	28	11.5	7.6	17.1
Portage County	22	7.4	4.6	11.3	23	7.6	4.8	11.5
Price County	5	4.6	1.5	13.8	7	6.2	2.5	15.7
Racine County	100	10.6	8.7	13.0	93	9.9	8.0	12.1
Richland County	9	7.6	3.5	15.7	12	10.5	5.4	19.5
Rock County	90	11.7	9.4	14.4	88	11.4	9.2	14.1
Rusk County	7	7.3	2.9	16.8	8	7.8	3.3	17.3
St Croix County	23	8.3	5.2	12.6	24	9.1	5.8	13.7
Sauk County	24	7.3	4.6	11.1	25	7.6	4.9	11.5
Sawyer County	14	12.4	6.7	22.8	13	11.7	6.2	22.0
Shawano County	26	9.7	6.3	14.7	23	8.5	5.3	13.2
Sheboygan County	81	13.3	10.5	16.6	70	11.4	8.9	14.5
Taylor County	9	7.7	3.5	15.4	11	9.2	4.6	17.4
Trempealeau County	24	13.6	8.6	21.1	23	13.2	8.3	20.6
Vernon County	22	12.3	7.6	19.4	25	13.7	8.8	21.0
Vilas County	18	10.2	6.0	18.5	14	8.7	4.6	16.9
Walworth County	47	9.9	7.3	13.2	41	8.6	6.2	11.7
Washburn County	16	14.8	8.4	26.0	16	14.2	8.1	25.2
Washington County	71	12.8	10.0	16.2	65	11.9	9.1	15.2
Waukesha County	240	13.4	11.8	15.2	218	12.2	10.6	14.0
Waupaca County	19	5.8	3.5	9.4	26	7.8	5.1	11.8
Waushara County	16	9.8	5.6	17.4	16	9.6	5.5	17.1
Winnebago County	90	11.6	9.3	14.2	92	11.7	9.4	14.4
Wood County	49	10.6	7.8	14.2	40	8.8	6.2	12.1

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 14: Prostate Cancer

Incidence

During 1998-2002, each year more than 4,000 Wisconsin men were diagnosed with prostate cancer. It was the leading cause of cancer in Wisconsin men (Figure 1.7).

The majority of prostate cancer cases (78%) were diagnosed at the early (localized) stage of disease (Figure 14.4).

Prostate cancer was rarely diagnosed in males under age 40. Incidence increased dramatically with age and peaked at ages 70-74 (Figure 14.3).

Data from 1998-2002 show that prostate cancer incidence in Wisconsin was lower than the national incidence for this disease (Figure 14.1).

African American males had the highest age-adjusted incidence rate (251.9 per 100,000 male population) and Asian/Pacific Island males had the lowest incidence rate (93.2 per 100,000) (Figure 14.5).

Mortality

Prostate cancer is second only to lung cancer as a cause of cancer deaths among Wisconsin males (Figure 1.7), with an average of 676 deaths each year from 1998 to 2002 (Table 14.2).

Parallel to prostate cancer incidence, the highest age-adjusted mortality rate (57.8 per 100,000) was among African Americans and the lowest was among Asian/Pacific Islanders (13.2 per 100,000) (Figure 14.6).

In 2002, the prostate cancer mortality rate in Wisconsin (29.8 per 100,000 males) was slightly higher than the national rate (28.1 per 100,000) (Figure 14.2).

Table 14.1. Prostate Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998 - 2002

Year of Diagnosis	Number of Cases	Age-Adj. Rate	APC
Annual Average 1998-2002	4,036	167.0	0.7%
1998	3,666	157.3	N/A
1999	4,089	172.7	N/A
2000	4,080	168.8	N/A
2001	4,226	172.0	N/A
2002	4,117	164.3	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin male population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

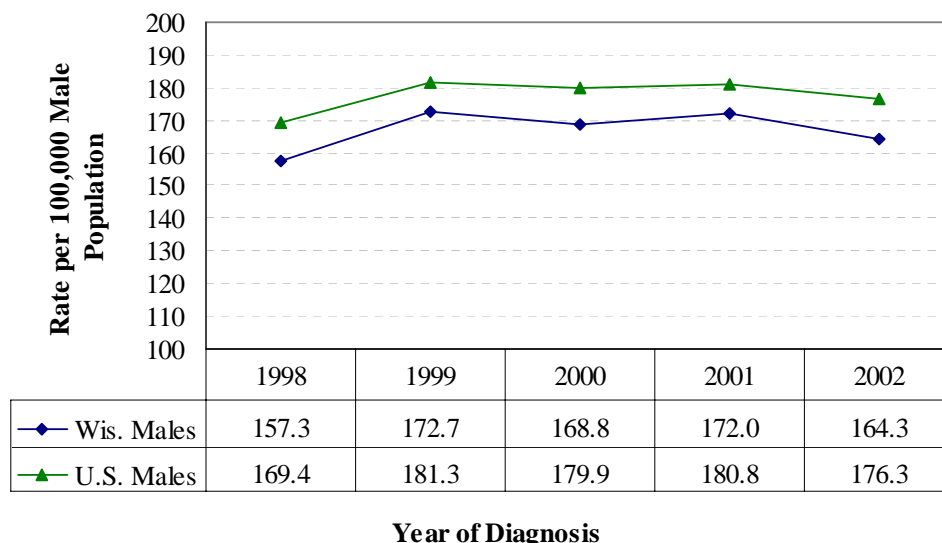
Table 14.2. Prostate Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 1998 - 2002

Year of Death	Number of Deaths	Age-Adj. Rate	APC
Annual Average 1998-2002	676	31.8	-5.2%
1998	751	36.5	N/A
1999	681	32.7	N/A
2000	661	31.2	N/A
2001	628	28.9	N/A
2002	661	29.8	N/A

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin male population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

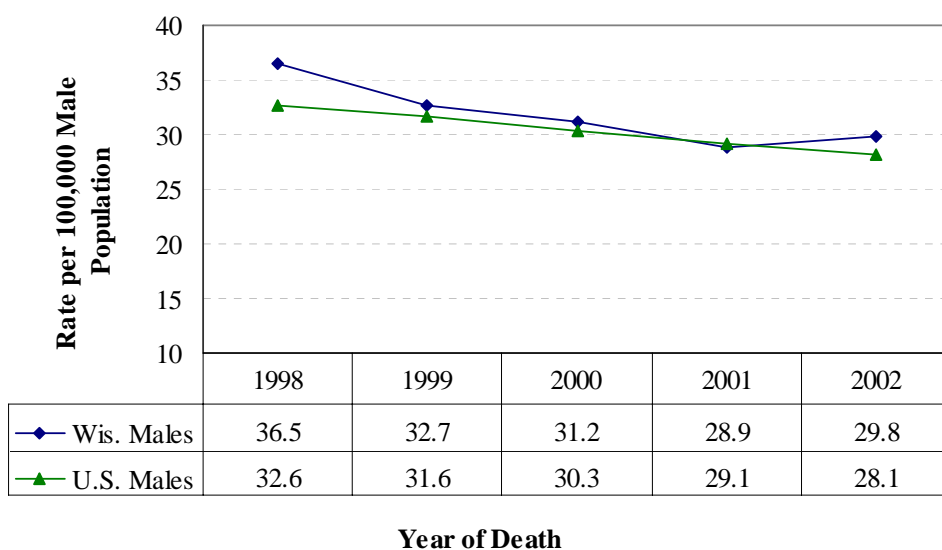
Figure 14.1. Prostate Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Rates are per 100,000 male population, and are age-adjusted to the 2000 U.S. standard population.

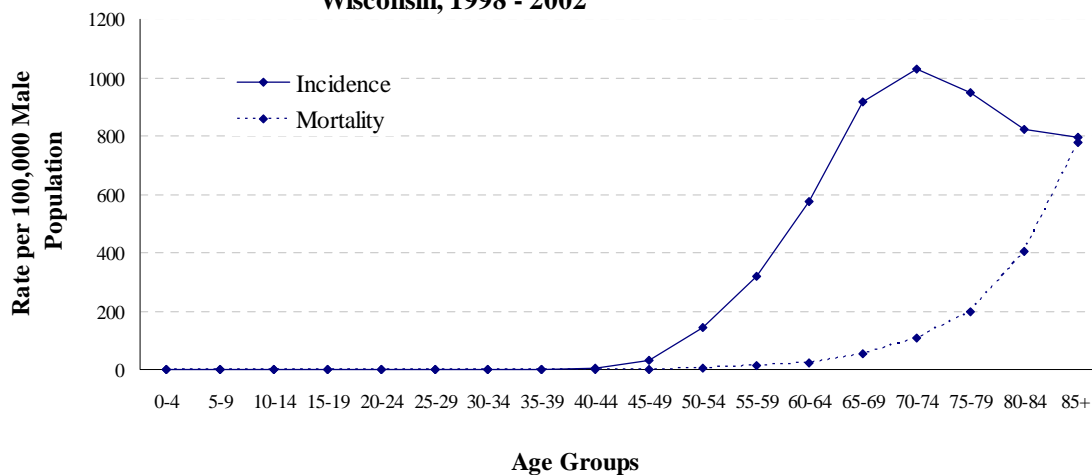
Figure 14.2. Prostate Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 1998 - 2002



Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Rates are per 100,000 male population, and are age-adjusted to the 2000 U.S. standard population.

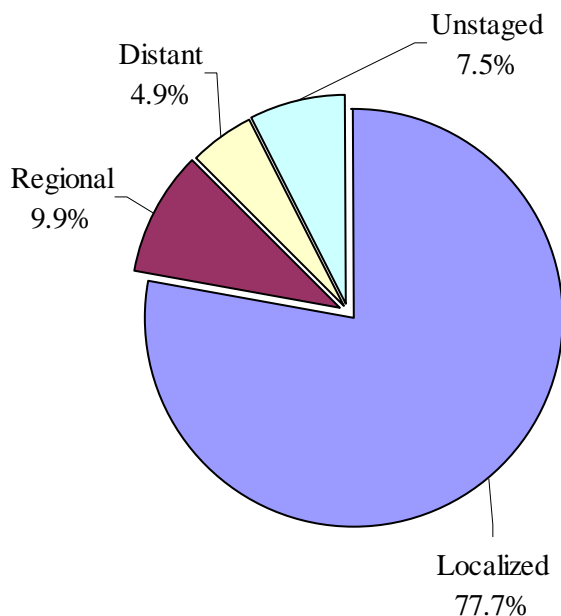
Figure 14.3. Prostate Cancer, Age-Specific Incidence and Mortality Rates, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 male population (1998-2002) for each age group.

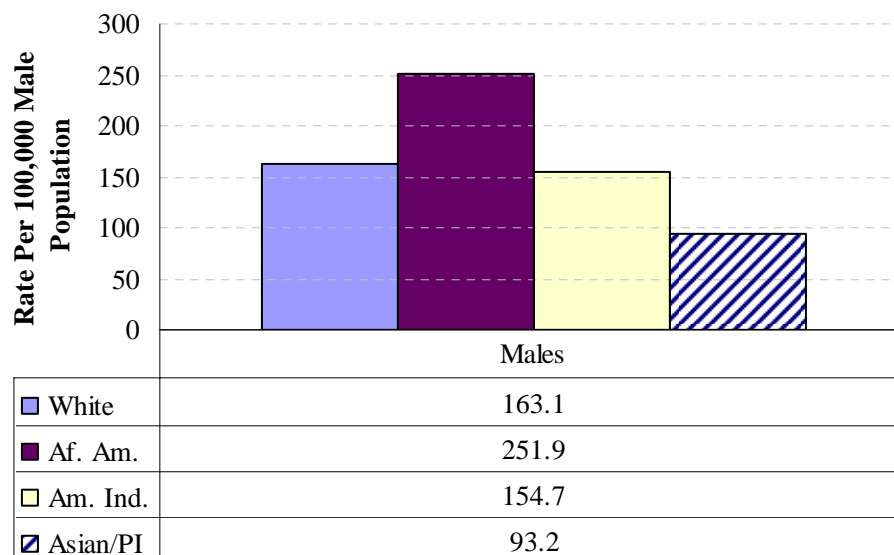
Figure 14.4. Prostate Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

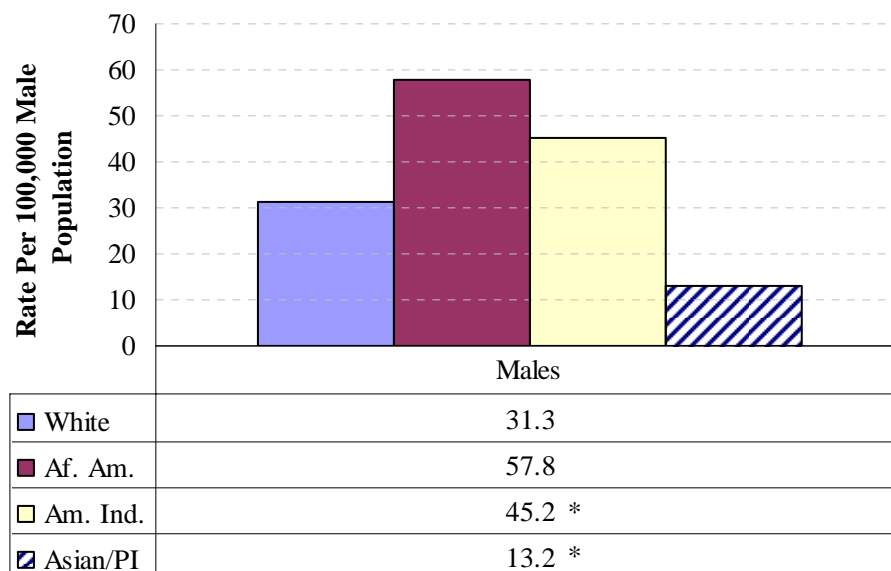
Figure 14.5. Prostate Cancer, Age-Adjusted Incidence Rates, by Race, Wisconsin, 1998 - 2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 male population in each racial group and are age-adjusted to the 2000 U.S. standard population.

Figure 14.6. Prostate Cancer, Age-Adjusted Mortality Rates, by Race, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 male population in each racial group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 14.3. Prostate Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	60	74.2	56.1	99.3	10	16.5	7.6	34.2
Ashland County	84	193.3	154.1	240.4	15	34.2	19.1	57.9
Barron County	158	126.6	107.6	148.3	39	32.2	22.9	44.4
Bayfield County	72	150.1	117.1	192.9	15	36.0	20.0	63.5
Brown County	831	192.0	179.1	205.8	105	29.6	24.1	35.9
Buffalo County	71	178.5	139.2	226.9	12	33.6	17.3	60.2
Burnett County	55	96.7	72.3	129.8	21	40.3	24.6	65.5
Calumet County	133	164.0	136.9	195.6	30	43.9	29.4	63.5
Chippewa County	198	145.1	125.5	167.0	38	30.1	21.2	41.4
Clark County	142	161.6	136.0	190.9	24	26.0	16.7	39.3
Columbia County	195	149.9	129.5	172.8	34	28.2	19.5	39.7
Crawford County	68	138.3	107.2	177.3	14	32.5	17.6	56.6
Dane County	1,242	165.1	155.8	175.6	188	31.2	26.8	36.1
Dodge County	334	162.7	145.7	181.2	65	33.5	25.8	42.8
Door County	182	203.5	174.8	237.3	24	30.8	19.6	47.9
Douglas County	113	110.8	91.2	133.9	36	38.5	26.8	53.9
Dunn County	100	125.6	102.1	153.0	24	32.2	20.6	48.0
Eau Claire County	257	138.4	121.9	156.6	64	37.8	29.0	48.4
Florence County	15	87.0	48.2	160.6	3	16.0	3.3	71.9
Fond du Lac County	455	199.0	181.1	218.3	87	42.2	33.8	52.2
Forest County	51	148.2	109.6	200.1	10	35.2	16.7	69.5
Grant County	177	144.4	123.8	167.7	43	38.9	28.1	52.6
Green County	81	99.8	79.2	124.6	25	32.6	21.1	48.7
Green Lake County	94	160.7	129.7	198.3	23	40.5	25.6	62.5
Iowa County	64	118.3	91.1	152.1	11	22.7	11.2	41.6
Iron County	48	183.4	134.8	262.1	9	36.1	16.4	94.4
Jackson County	78	152.4	120.3	191.7	12	26.5	13.6	47.7
Jefferson County	297	176.6	156.9	198.4	41	28.3	20.2	38.7
Juneau County	110	151.9	124.6	184.4	26	45.3	29.3	67.4
Kenosha County	473	159.2	145.0	174.5	69	28.7	22.2	36.5
Kewaunee County	118	225.8	186.9	271.3	21	40.7	25.1	63.2
La Crosse County	356	160.6	144.2	178.4	57	29.1	21.9	37.8
Lafayette County	48	111.1	81.7	149.0	7	17.1	6.8	37.2
Langlade County	72	108.1	84.5	137.8	14	22.7	12.3	40.0
Lincoln County	156	190.6	161.8	223.8	36	47.6	33.3	66.6
Manitowoc County	404	191.5	173.3	211.3	82	41.9	33.3	52.2
Marathon County	436	153.2	139.1	168.4	78	29.7	23.4	37.2

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	239	187.0	164.0	213.1	43	36.0	26.0	49.3
Marquette County	78	146.0	114.7	185.3	17	38.9	22.2	65.1
Menominee County	16	268.2	122.1	561.0	3	82.5	9.8	335.2
Milwaukee County	3,249	172.1	166.2	178.1	561	32.3	29.6	35.1
Monroe County	131	128.1	107.0	152.5	26	29.3	19.1	43.4
Oconto County	155	156.6	132.7	184.2	23	26.9	17.0	41.0
Oneida County	214	173.6	150.7	200.0	34	35.1	24.1	50.3
Outagamie County	548	177.1	162.4	192.8	87	32.2	25.7	39.9
Ozaukee County	389	194.3	175.2	215.3	46	28.1	20.4	38.0
Pepin County	34	163.3	113.0	232.1	5	23.1	7.5	60.1
Pierce County	62	95.5	73.0	123.6	19	34.7	20.7	55.0
Polk County	142	130.1	109.5	154.0	23	22.1	14.0	33.8
Portage County	198	146.5	126.7	168.9	30	26.5	17.8	38.1
Price County	77	149.7	118.0	190.2	12	22.8	11.8	44.2
Racine County	810	198.5	184.9	212.9	97	28.5	23.0	35.0
Richland County	51	101.7	75.7	135.0	10	22.0	10.5	41.6
Rock County	577	171.0	157.2	185.8	77	26.9	21.2	33.8
Rusk County	60	129.1	98.4	168.4	19	39.4	23.7	64.2
St Croix County	76	70.7	55.4	89.2	34	37.9	26.2	53.0
Sauk County	240	176.7	155.0	200.8	41	30.8	22.0	42.0
Sawyer County	73	134.3	104.8	172.0	14	30.2	16.3	53.6
Shawano County	181	154.7	132.9	179.5	48	41.9	30.9	56.1
Sheboygan County	522	197.2	180.6	215.0	72	29.3	22.9	37.0
Taylor County	75	143.9	113.2	181.1	18	34.5	20.4	55.3
Trempealeau County	118	158.5	131.2	190.7	20	26.5	16.2	42.0
Vernon County	147	184.2	155.6	217.5	23	29.8	18.9	46.0
Vilas County	128	151.4	125.6	183.5	16	22.3	12.6	39.8
Walworth County	339	160.8	144.1	179.2	47	25.9	18.9	34.6
Washburn County	60	113.0	86.1	148.4	19	37.9	22.8	62.5
Washington County	417	170.9	154.5	188.8	71	36.1	28.0	45.9
Waukesha County	1,681	208.9	198.8	219.4	188	29.6	25.4	34.3
Waupaca County	270	182.7	161.5	206.3	64	43.2	33.3	55.7
Waushara County	82	104.8	82.7	132.7	15	24.1	13.2	41.9
Winnebago County	571	170.6	156.8	185.3	91	30.6	24.6	37.7
Wood County	335	173.8	155.6	193.6	57	30.9	23.4	40.2

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 male population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Chapter 15: Cancer of the Urinary Bladder

Incidence

In 1998-2002, an average of 1,222 cases of bladder cancer were diagnosed each year in Wisconsin (Table 15.1).

Bladder cancer was the fourth most common cancer diagnosed among Wisconsin males during 1998-2002 (Figure 1.7). The age-adjusted incidence rate for males was almost four times the rate among females (Table 15.1).

Age-adjusted incidence rates for bladder cancer in Wisconsin were similar to U.S. incidence rates (Figure 15.1).

The majority of bladder cancers (80%) were diagnosed at the early (localized) stage of disease, and a relatively low proportion of cases (12%) were diagnosed at a regional or distant stage (Figure 15.4).

Mortality

In 1998-2002, an average of 256 Wisconsin residents died annually from bladder cancer (Table 15.2).

Males had a higher age-adjusted mortality rate (7.8 per 100,000) than females (2.4 per 100,000) during the five-year period (Table 15.2).

African Americans and whites had higher mortality rates (4.6 and 4.5 per 100,000, respectively) from bladder cancer than American Indians (1.2 per 100,000) and Asians/Pacific Islanders (0.9 per 100,000) (Figure 15.6).

Table 15.1. Bladder Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Diagnosis	Male			Female			Total		
	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC	Number of Cases	Age-Adj. Rate	APC
Annual Avg. 1998-2002	896	38.1	-3.5%	326	10.3	-2.6%	1,222	22.0	-3.1%
1998	915	39.9	N/A	325	10.5	N/A	1,240	22.9	N/A
1999	945	40.8	N/A	337	10.9	N/A	1,282	23.4	N/A
2000	912	38.8	N/A	326	10.4	N/A	1,238	22.4	N/A
2001	843	35.5	N/A	342	10.6	N/A	1,185	21.1	N/A
2002	864	35.7	N/A	300	9.2	N/A	1,164	20.6	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

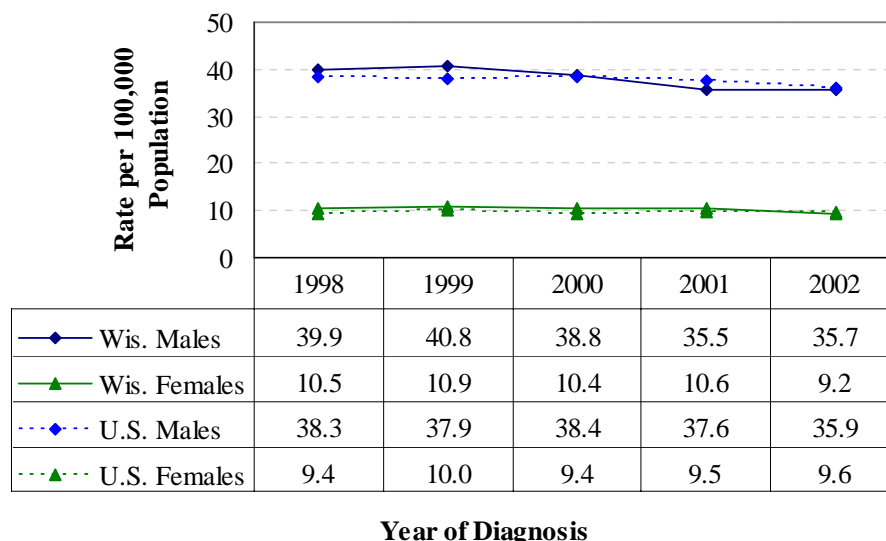
Table 15.2. Bladder Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 1998 - 2002

Year of Death	Male			Female			Total		
	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC	Number of Deaths	Age-Adj. Rate	APC
Annual Avg. 1998-2002	173	7.8	3.0%	82	2.4	1.1%	256	4.5	2.8%
1998	164	7.7	N/A	78	2.2	N/A	242	4.3	N/A
1999	159	7.3	N/A	82	2.4	N/A	241	4.3	N/A
2000	163	7.4	N/A	78	2.3	N/A	241	4.2	N/A
2001	190	8.4	N/A	95	2.7	N/A	285	5.0	N/A
2002	191	8.3	N/A	78	2.2	N/A	269	4.6	N/A

Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

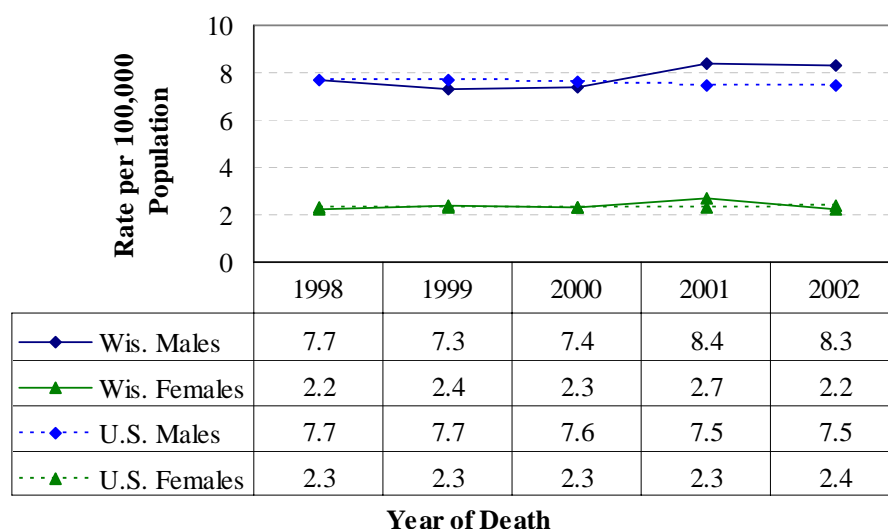
Figure 15.1. Bladder Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

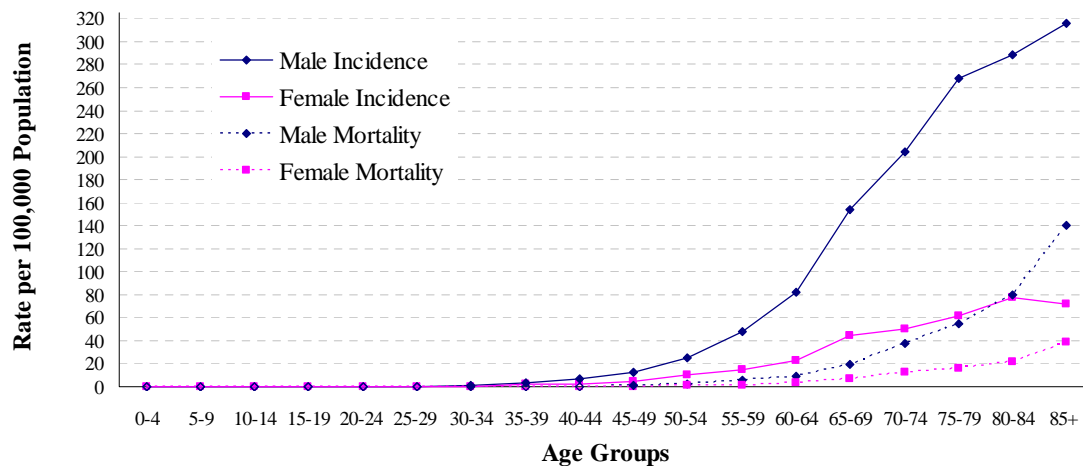
Figure 15.2. Bladder Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 1998 - 2002



Sources: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2002, National Cancer Institute.

Note: Male and female rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

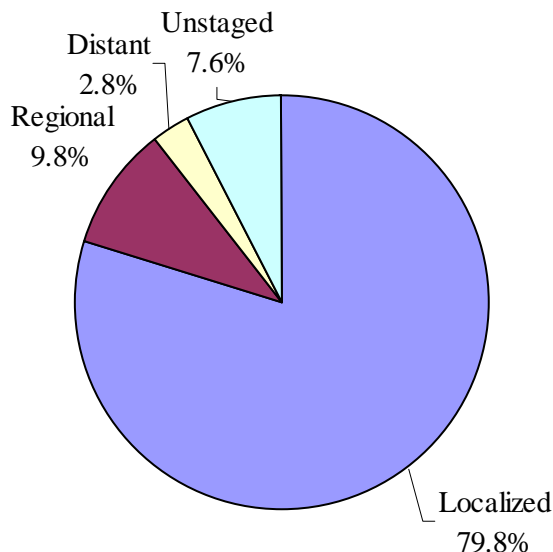
Figure 15.3. Bladder Cancer, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 1998 - 2002



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 population (1998-2002) for each age group and sex.

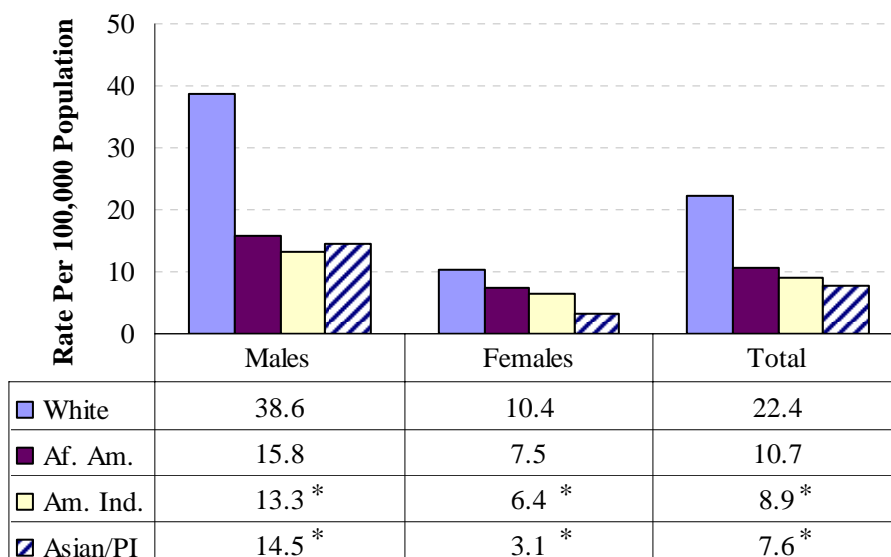
Figure 15.4. Bladder Cancer, Stage of Disease at Diagnosis, Wisconsin, 1998-2002



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Figure 15.5. Bladder Cancer, Age-Adjusted Incidence Rates, by Race and Sex, Wisconsin, 1998 - 2002

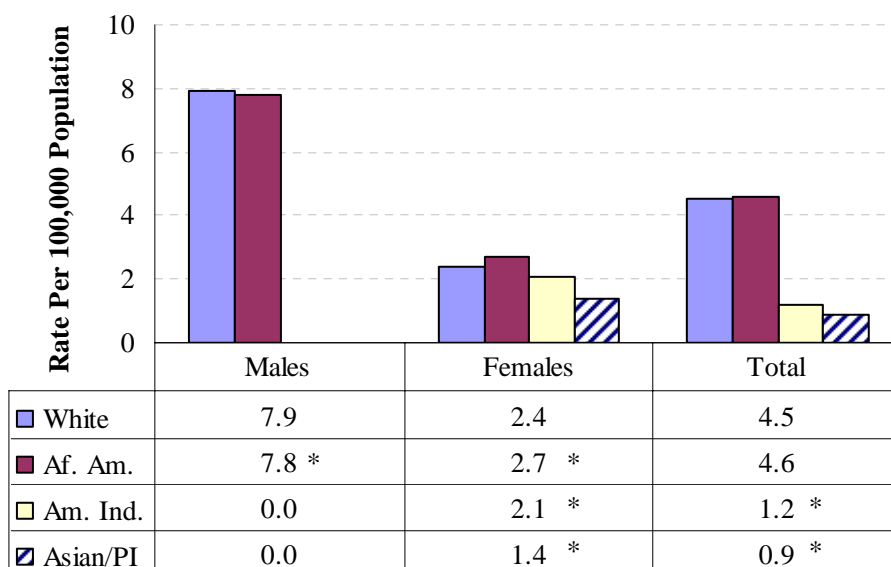


Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are cases per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 15.6. Bladder Cancer, Age-Adjusted Mortality Rates, by Race and Sex, Wisconsin, 1998 - 2002



Source: Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are deaths per 100,000 population in each race/sex group and are age-adjusted to the 2000 U.S. standard population.

* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 15.3. Bladder Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates, Confidence Intervals, by County, Wisconsin, 1998-2002

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Adams County	30	21.8	14.5	33.0	8	5.9	2.5	13.8
Ashland County	11	11.3	5.6	21.1	3	3.0	0.6	9.9
Barron County	52	18.5	13.7	24.6	9	3.2	1.5	6.5
Bayfield County	16	16.6	9.5	29.6	5	5.0	1.6	15.1
Brown County	221	22.3	19.5	25.5	58	5.8	4.4	7.5
Buffalo County	14	16.4	8.9	29.0	2	2.2	0.3	10.4
Burnett County	12	10.3	5.3	20.2	5	4.0	1.3	12.4
Calumet County	42	23.3	16.8	31.6	8	4.5	1.9	9.0
Chippewa County	70	22.7	17.6	28.8	12	3.6	1.9	6.6
Clark County	41	19.2	13.7	26.6	10	4.5	2.1	9.0
Columbia County	66	22.6	17.5	28.9	10	3.2	1.5	6.3
Crawford County	27	25.1	16.5	37.7	7	6.4	2.5	14.7
Dane County	318	18.9	16.9	21.1	85	5.1	4.1	6.3
Dodge County	94	20.1	16.2	24.7	19	3.8	2.3	6.1
Door County	53	27.6	20.5	37.2	7	3.5	1.4	8.7
Douglas County	34	14.1	9.7	19.9	8	3.1	1.3	6.5
Dunn County	36	20.0	13.9	27.8	6	3.0	1.1	6.8
Eau Claire County	89	19.9	16.0	24.6	21	4.4	2.7	6.8
Florence County	5	14.0	4.5	42.7	3	8.2	1.7	35.3
Fond du Lac County	140	25.9	21.7	30.6	30	5.1	3.5	7.5
Forest County	8	11.1	4.8	25.0	1	1.3	0.0	12.1
Grant County	48	16.9	12.4	22.8	15	4.8	2.7	8.4
Green County	43	22.4	16.1	30.6	10	5.0	2.4	9.9
Green Lake County	23	18.1	11.3	28.4	3	2.3	0.4	8.6
Iowa County	17	14.2	8.3	23.5	6	5.0	1.8	11.7
Iron County	12	20.3	10.4	47.8	4	6.8	1.8	32.6
Jackson County	21	19.4	12.0	30.5	3	2.6	0.5	8.9
Jefferson County	78	20.8	16.4	26.0	17	4.5	2.6	7.3
Juneau County	41	27.2	19.4	37.6	5	3.1	1.0	8.4
Kenosha County	138	19.9	16.7	23.6	18	2.5	1.5	4.0
Kewaunee County	19	15.9	9.5	25.6	4	2.9	0.8	8.7
La Crosse County	113	21.4	17.6	25.8	14	2.5	1.4	4.3
Lafayette County	17	17.5	10.2	29.3	6	5.9	2.2	14.4
Langlade County	20	14.5	8.8	23.7	8	5.1	2.2	11.7
Lincoln County	43	23.6	17.0	32.4	5	2.6	0.8	7.0
Manitowoc County	91	18.1	14.6	22.4	21	4.1	2.5	6.5
Marathon County	128	19.7	16.4	23.5	32	4.8	3.3	6.9

	Incidence				Mortality			
	Total Cases	Average Rate	Confidence Interval		Total Deaths	Average Rate	Confidence Interval	
			Lower	Upper			Lower	Upper
Marinette County	69	24.7	19.1	31.7	11	3.2	1.6	6.6
Marquette County	32	29.8	20.2	44.0	7	6.8	2.7	16.2
Menominee County	2	19.8	2.2	95.0	0	0.0	0.0	67.3
Milwaukee County	1,014	21.6	20.3	23.0	229	4.7	4.1	5.3
Monroe County	51	22.9	17.0	30.3	16	7.0	4.0	11.7
Oconto County	37	17.9	12.6	25.1	10	4.8	2.3	9.4
Oneida County	78	29.9	23.6	38.1	13	5.0	2.7	9.6
Outagamie County	196	27.1	23.5	31.2	25	3.5	2.2	5.1
Ozaukee County	90	21.1	17.0	26.2	15	3.7	2.1	6.3
Pepin County	9	18.5	8.4	39.1	1	1.5	0.0	16.3
Pierce County	13	8.7	4.6	15.0	2	1.3	0.2	5.0
Polk County	48	19.5	14.3	26.2	12	4.8	2.4	8.9
Portage County	67	22.5	17.4	28.6	9	2.9	1.3	5.6
Price County	15	13.6	7.6	24.8	2	1.8	0.2	10.3
Racine County	242	26.0	22.8	29.5	50	5.4	4.0	7.1
Richland County	16	14.1	8.0	23.9	11	9.0	4.5	17.5
Rock County	183	23.8	20.4	27.5	32	4.1	2.8	5.8
Rusk County	23	22.6	14.3	35.5	5	4.4	1.4	12.6
St Croix County	42	15.9	11.4	21.6	10	3.7	1.8	7.0
Sauk County	57	18.1	13.7	23.6	10	2.9	1.4	5.7
Sawyer County	23	21.1	13.4	33.5	7	6.4	2.5	15.4
Shawano County	62	24.2	18.5	31.5	14	5.0	2.7	8.9
Sheboygan County	153	24.6	20.9	28.9	32	4.9	3.3	7.0
Taylor County	23	20.3	12.8	31.1	5	4.2	1.4	10.8
Trempealeau County	32	19.6	13.3	28.3	7	4.3	1.7	9.8
Vernon County	43	23.1	16.6	31.9	13	6.5	3.4	12.1
Vilas County	51	28.9	21.4	40.0	10	5.6	2.7	13.0
Walworth County	124	26.2	21.8	31.4	34	6.9	4.8	9.7
Washburn County	27	23.8	15.7	36.6	11	9.5	4.7	19.4
Washington County	146	26.5	22.4	31.2	33	6.1	4.2	8.6
Waukesha County	471	26.2	23.9	28.7	75	4.3	3.3	5.4
Waupaca County	82	24.8	19.7	31.1	14	4.1	2.2	7.4
Waushara County	37	22.5	15.8	32.3	13	7.9	4.2	15.0
Winnebago County	204	26.2	22.7	30.1	35	4.3	3.0	6.0
Wood County	116	26.2	21.6	31.5	17	3.7	2.1	6.1

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Appendix 1

Cancer Reporting Statute (s. 255.04, Wisconsin Statutes)

- (1) Any hospital, as defined under s. 50.33(2), any physician and any laboratory certified under 42 USC 263a shall report information concerning any person diagnosed as having cancer or a precancerous condition to the department as prescribed by the department under sub. (2).
- (2) The department shall prescribe:
 - (a) The form on which the report under sub. (1) shall be submitted.
 - (b) The time schedule under which the report under sub. (1) shall be submitted.
 - (c) The types of cancer and precancerous conditions to be reported under sub. (1).
- (3) Any information reported to the department under sub. (1) or (5) which could identify any individual who is the subject of the report or the physician submitting the report shall be confidential and may not be disclosed by the department except to the following:
 - (a) A central tumor registry in another state if the individual who is the subject of the information resides in the other state.
 - (b) A national tumor registry recognized by the department.
- (4) The report of information under sub. (1) or (5) may not be construed as a violation of any person's responsibility for maintaining the confidentiality of patient health care records, as defined under s. 146.81 (4).
- (5) The department may, to the extent feasible, collect information related to the occupation of cancer patients in order to fulfill the purpose of s. 250.04 (3) (b) 4.

Administrative Rule: Hospital Cancer Reporting (HFS 124.05(3)(h), Wis. Admin. Code)

Every hospital shall report to the department all malignant neoplasms that are diagnosed by the hospital and all malignant neoplasms diagnosed elsewhere if the individual is subsequently admitted to the hospital. The report of each malignant neoplasm shall be made on a form prescribed or approved by the department and shall be submitted to the department within 6 months after the diagnosis is made or within 6 months after the individual's first admission to the hospital if the neoplasm is diagnosed elsewhere, as appropriate. In this paragraph, "malignant neoplasm" means an *in situ* or invasive tumor of the human body, but does not include a squamous cell carcinoma or basal cell carcinoma arising in the skin or an *in situ* carcinoma of the cervix uteri.

Appendix 2: Neoplasm Record/Report: Required Data for 2002 Diagnoses

Patient Demographics

Last Name	County of Residence at diagnosis
First Name	Race (up to 5 can be recorded)
Middle Name	Hispanic Origin
Maiden Name	Occupation/Industry (text)
Sex	Date of Birth
Street Address at diagnosis	Birthplace
City at diagnosis	Marital Status
State at diagnosis	Social Security Number
Zip Code at diagnosis	

Administrative Fields

Medical Record Number	Facility Referred From
Tumor Registry Accession Number (if applicable)	Facility Referred To
CRS Facility Code	Class of Case
Follow-up Physician Number	

Tumor Characteristics

Sequence Number	Cell Type
Date of First Contact	Grade
Date of Diagnosis	Tumor Size
Primary Site/Subsite	Metastatic Sites
Laterality	Stage of Disease (at diagnosis)
Diagnostic Confirmation	

Treatment Fields

Cancer Directed Treatment
Non-Definitive Treatment
Treatment Date

Text Fields

Diagnostic Fields
Treatment Fields
Miscellaneous

Note: Per federal cancer reporting requirements established by the National Program of Cancer Registries, the above data are required on each case submitted to the Wisconsin Cancer Reporting System. Data can be submitted by filling out the Neoplasm/Record report form provided by WCRS or by submitting electronic data using a WCRS-approved record layout format.

Appendix 3: Cancer Reporting System Operating Procedures

Data Collection. The Wisconsin Cancer Reporting System receives hospital information from medical records departments or tumor registries. Each records department or registry has two major responsibilities. The first is case finding. All of the hospital's newly diagnosed and/or admitted cancer cases need to be identified. As part of this identification, medical records as well as radiology, pathology, outpatient clinic and autopsy reports need to be examined to assure complete reporting. The second responsibility of the registry or records department is to report the cases identified from one or more of the above-mentioned processes to WCRS. Reporting is done either by completing the one-page Neoplasm Report Form, or by submitting electronic files using a pre-approved record layout and submission protocol.

Physicians and freestanding clinics report (1) all cancer cases they treat, and (2) those cases they diagnose if the case is not referred to a Wisconsin hospital for treatment within two months of the diagnosis date.

Reports for Wisconsin residents receiving care in Alaska, Arkansas, Arizona, California, Colorado, Florida, Illinois, Indiana, Iowa, Kentucky, Massachusetts, Michigan, Mississippi, Missouri, Montana, Texas, Washington, West Virginia and Wyoming are reported to WCRS by the central registries for those states. Minnesota hospitals with substantial numbers of Wisconsin resident cancer patients report Wisconsin cases directly to WCRS.

Finally, WCRS matches its records to the Wisconsin resident annual death file to add mortality information for persons who have previously been reported to WCRS. From that match, WCRS identifies cases where cancer is indicated on the death certificate only (DCO) but no report exists in the registry. For those cases, WCRS queries the medical source listed on the death certificate (the hospital, out-of-state registry, physician or coroner who certified the death) to provide information about the cancer case that was not previously reported to WCRS. Cases for which follow-back information is not available are DCO cases and often have incomplete or missing information, such as the date or stage of disease at diagnosis. In this report, for DCO cases, the date of death is used as the date of diagnosis, following the current protocol practiced by NAACCR, DHHS federal publications and most state-level publications.

Supplemental Data Sources. Mortality data were obtained from the 1998-2002 Wisconsin resident death files. The mortality tables are based on deaths that occurred in 1998-2002 for which the underlying cause of death was a reportable cancer. Certificates for out-of-state deaths of Wisconsin residents were provided to the Wisconsin Vital Records Section by the states where the deaths occurred, and were available for inclusion in this report if the out-of-state Vital Records office approved release of the information to the central cancer registry. Please note the Wisconsin Vital Records Section mortality data may therefore vary slightly from national sources of Wisconsin mortality data such as SEER*Stat public-use mortality data. The SEER*Stat public-use mortality data for 2002 were not available at the time data were prepared for this report.

Rate Calculations. For this report, all incidence and mortality data were calculated using the SEER*Stat statistical package from NCI. Rates were age-adjusted using the direct method to the 2000 U.S. standard population. All rates are rounded to the nearest tenth; rates less than .05 are shown as 0.0. Wisconsin population estimates for 1998 through 2002 by race and by county were provided by the National Cancer Institute as part of its SEER*Stat statistical software package. The population estimates and methodology are available at the following Web site: www.seer.cancer.gov/popdata/.

Cancer Incidence Sites. The International Classification of Diseases for Oncology, version 2 (ICD-O-2) was used for cases diagnosed prior to 2001 and version 3 (ICD-O-3) was used for cancer cases diagnosed in 2001 and 2002. The sites in this report are based on the SEER Program's recode variables based on primary site and histology types for ICD-O-3. The complete list of SEER Site Recode ICD-O-3 Definitions is available at: www.seer.cancer.gov/siterecode/icdo3_d01272003/

Cancer Mortality Sites. International Classification of Diseases, Ninth Edition (ICD-9) for coding underlying cause of death was used for cancer deaths prior to 1999, and replaced by the ICD-10 for deaths that occurred in 1999 and subsequent years.

The SEER program recode for cancer causes of death used in this report can be found at: www.seer.cancer.gov/codrecode/1969+_d09172004/index.html

Reportable Cases. All primary malignant neoplasms are reportable in Wisconsin except basal cell and squamous cell carcinoma of the skin and noninvasive cancers of the cervix uteri. Benign tumors, premalignant conditions and diseases secondary to the neoplastic process are not reportable.

The incidence tables in this publication are based on Wisconsin resident cases of reportable cancer first diagnosed during the years 1998 - 2002 and reported to the Cancer Reporting System by January 31, 2005.

Record Confidentiality. In addition to protecting data release as required by the cancer reporting statute, WCRS follows strict guidelines once data are received to maintain the in-house confidentiality of patient records. Procedures include, but are not limited to, securely storing all records on the Department computer network; limiting computer access for confidential data items to only WCRS staff; and locking up all paper records, diskettes and paper or electronic output that include confidential data items. More detailed information regarding confidentiality protections may be obtained by contacting WCRS. Please note that even though WCRS, as a public health surveillance system, is classified as HIPAA-exempt (Health Insurance Portability and Accountability Act) per the HIPAA Privacy Rule (45 CFR 164.501 and 45 CFR 164.512), it follows HIPAA guidelines to the extent possible.

Quality Assurance. WCRS staff routinely edit cancer reports for completeness and logical consistency, and make periodic checks for consistency among multiple reports received for the same case. If an inconsistency is found, queries are sent to the reporting agent and corrections are made in the records. If more than one report is on file for the same person or tumor, the records are matched using national case-merging and consolidation protocols. This protocol allows for the most accurate and complete information on the description of the tumor cell type, extent of disease at diagnosis, method of diagnostic confirmation, types of definitive therapy, race of patient, etc.

Completeness and Timeliness of Reports. The completeness estimate for 1998-2002 data is 95 percent. Statewide training sessions offered by WCRS to the reporting facilities focus on increasing complete casefinding, timeliness, and compliance with the cancer reporting statute and administrative rule.

The North American Association of Central Cancer Registries (NAACCR) recently awarded WCRS its Gold Standard for 2002 data quality, completeness and timeliness. This was the eighth year that WCRS received national recognition from NAACCR for achieving high standards in data preparation.

Multiple Tumor Determination. When apparent multiple neoplasms of the same primary site in one patient exist simultaneously or over a period of time, WCRS applies the following rules to determine whether more than one independent primary tumor exists:

- 1) A single lesion with multiple histologic types is considered a single primary.
- 2) An independent primary cancer of the same histologic type as one diagnosed in the same site more than one year earlier is considered a separate primary cancer, unless the physician states that it is a recurrence of the earlier cancer.
- 3) Simultaneous multiple lesions of the same histologic type within the same primary site are considered a single primary cancer.
- 4) Multiple lesions of different histologic types within a single site, whether occurring simultaneously or at different times, are considered separate primaries.
- 5) Each side of a paired organ is considered a separate site with the following three exceptions: simultaneous ovarian tumors, simultaneous Wilm's tumors (of the kidney) and simultaneous retinoblastomas (of the eye). These exceptions are coded as a tumor of the paired organ with bilateral presentation (involvement of the tumor in both sides of a paired organ). Aside from the above exceptions, lesions in both sides of a paired organ are considered separate tumors whether occurring simultaneously or at different times unless a physician determines a) one side is metastatic from the other or b) the tumor is presenting bilaterally.

While the ICD-O codes (used to code incidence cases) are used to assign both a primary site code *and* a cell type code to every tumor, ICD-9 and ICD-10 codes (used to code deaths) reflect either site *or* cell type. The ICD-9 and ICD-10 have three skin tumor classifications, one for melanomas of the skin, one for Kaposi's sarcoma of the skin, and one for all other skin tumors combined. Basal cell and squamous cell carcinomas of the skin, which are not reportable to the Cancer Reporting System, make up the majority of these "other" skin tumors. In this publication, only reportable nonmelanoma skin cancers are included in the *incidence* tables in the site group "All Others."

Appendix 4: Definitions

Age-Adjusted Rate - Incidence or mortality rate adjusted to account for different age distributions between populations. In this report, all rates are age-adjusted using the 2000 U.S. standard population. This publication used the direct method of calculating rates, in which the actual age-specific rate in the Wisconsin population is weighted by the proportionate age distribution of the standard U.S. population. Age-adjusted rates can be compared only when the same standard population is used in the calculations.

Age-Specific Rate - A crude rate showing the actual number of cancer cases or deaths found in a relatively narrow age group (for example, 40-45 years) per 100,000 population in that age group. Age-specific rates can be used to compare differences in incidence or mortality between age groups, and an age-specific rate can be compared to other rates for the same age group.

Annual Percent Change (APC) - The yearly average percent change in incidence or mortality rates during the five-year period was computed using the SEER*Stat statistical software. Not as subject to yearly fluctuations as the total percent of change over time, the APC provides a more reliable measure of change. The APC is calculated by fitting a least squares regression line to the natural logarithm of the rates using the year as a regressor variable; this is called the “weighted least squares method.”

Cancer Incidence - The number of new cases of cancer that occur during a specified period in a population at risk of developing the disease, expressed as the number of cases or as a rate, usually per 100,000 persons. A cancer incidence rate is the number of newly diagnosed cancers of a specific site that occurred in a specified time period, expressed as the number of cancers per 100,000 population at risk.

Cancer Mortality - Deaths with cancer as the underlying cause of death that occur during a specified period of time in a particular population. A cancer mortality rate is expressed as the number of deaths due to cancer in a specified site that occurred in a specified time period, per 100,000 population at risk.

Confidence Interval - A 95% confidence interval is commonly reported and will contain the true value 95 percent of the time. The range between the lower and upper limits of the confidence interval defines with 95% probability the “true” rate. A rate with a larger confidence interval is less precise than a rate with a smaller confidence interval.

Burden – In this report the burden of cancer is shown by the number of new cases and or/deaths from cancer. Wisconsin’s Comprehensive Cancer Control Plan has the primary goal of assessing and addressing the cancer burden in the state by reducing morbidity and mortality from cancer and reducing disparities in cancer burden among subpopulations.

Invasive - Malignant cancer or tumor that has invaded tissue or surrounding organs.

Patient Residence - The data collected by WCRS reflects the patient’s residence at the time of diagnosis. Mortality data are based on the decedent’s county of residence at the time of death.

Patient Race - The race categories used in this report are 1) white, 2) African American 3) American Indian 4) Asian/Pacific Islander. Persons with unknown race are excluded from the race-based analyses. The specific race categories are as follows:

White
African American or black
American Indian, Aleutian, or Eskimo

Asian/Pacific Islander	
Chinese	Guamanian, NOS
Japanese	Polynesian, NOS
Filipino	Tahitian
Hawaiian	Samoan
Korean	Tongan
Asian Indian, Pakistani	Melanesian, NOS
Vietnamese	Fiji Islander
Hmong	New Guinean
Kampuchean	Other Asian, inc. Asian, NOS
Thai	and Oriental, NOS
Micronesian, NOS	Pacific Islander, NOS
Chamorroan	
Unknown	

Stage of Disease at Diagnosis - The stage of disease at diagnosis refers to how far a cancer had spread from the site of origin when it was diagnosed. WCRS cancer data are coded according to summary guidelines of the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) program. The following staging definitions are used in this report:

<i>In Situ</i>	A small cancer confined to the cells in which the cancer began, that does not invade or penetrate the surrounding tissue.
<i>Localized</i>	An invasive tumor (penetrated the surrounding tissue) that is confined to the organ of origin.
<i>Regional</i>	A tumor that has spread beyond the organ of origin to adjacent organs or tissue by direct extension (penetrated directly into surrounding organs or tissues), or through the regional lymph nodes (through the lymphatic system), or both, but appears to have spread no further.
<i>Distant</i>	A tumor that has spread to parts of the body remote from the primary organ, or a systemic malignancy (such as cancers in the blood, bone marrow, or lymph system).
<i>Unknown/Unstaged</i>	Insufficient information available to determine the stage of disease at diagnosis.

Appendix 5: Caveats/Limitations

Geographic Boundaries. Two factors affect interpretation of geographic location tabulations.

First, many Wisconsin counties have a very small number of new cancer diagnoses or deaths in a year, resulting in site-specific frequencies in the single digits. Such small numbers may easily double or triple (or decrease by equivalent amounts) from year to year. When years of data or primary sites are combined to produce larger number of events, the rates become more stable. County data in this report are averaged over the five years to provide more stable rates. Even with multiple years of data, however, the numbers may still be small and some random fluctuation is expected. To provide guidance in assessing the stability of rates, all county tables show the upper and lower limits of the confidence interval for each rate, which will include the true value 95 percent of the time. A large confidence interval indicates high variability of the “true” rate, while a small confidence interval indicates greater stability of the rate.

Second, reporting completeness and/or timeliness may vary by region. The largest reporting variations relate to out-of-state diagnosis and treatment of patients who live in the sparsely populated counties along the Wisconsin/Minnesota border and are seen in Minnesota hospitals. Reporting by Minnesota hospitals to WCRS is a voluntary process (established through memoranda of understanding that protect patient confidentiality) and is not covered under Section 255.04, Wisconsin Statutes. Therefore, the number of reports sent to WCRS can vary greatly from year to year. Overall, fewer cases were received from Minnesota facilities for 1998-2002 diagnoses than were received in previous years. This under-reporting of cases may have an effect on county incidence totals (the effect on regional/statewide totals is minimal).

Although cancer incidence and mortality rates vary by county in Wisconsin, the small populations in many counties preclude meaningful comparisons and conclusions. Many county rates are based on small numbers of cases and are not reliable. In addition to the instability of cancer rates due to relatively small numbers, county differences in major risk factors (such as smoking for lung cancer) are not accounted for in WCRS data. However, when precautions were taken, cancer information at the county level has proven to be useful in the planning and development of health care resources, educational programs and cancer control plans.

Patient Race. Historically, differences among facilities in recording patient race (information not required in medical chart, entered by proxy, patient self-reporting) have led to a number of ambiguous or unknown race codes. As training and expanded codes have been introduced in recent years, the number of incidence cases reported with unknown race has decreased. However, misclassification was found for certain racial groups. A recent linkage project found 25 percent misclassification of American Indians, for example. Cancer cases incorrectly reported as white were identified as American Indian through linkage with U.S. Indian Health Service lists. Data in this report reflect all American Indian cases identified through the linkage project for years 1998-2002. Therefore, higher cancer case counts and incidence rates for American Indians may be noted for some sites compared to previous Wisconsin publications.

Appendix 6: Wisconsin Population Tables

Wisconsin Population Estimates by 5-Year Age Group And Sex: 1998

Age	Male	Female
0-4	169,128	161,447
5-9	197,213	187,566
10-14	206,758	196,202
15-19	207,574	197,123
20-24	174,778	168,696
25-29	176,236	172,010
30-34	192,431	189,245
35-39	223,362	222,513
40-44	216,505	214,302
45-49	190,615	188,624
50-54	152,572	152,086
55-59	117,402	121,470
60-64	97,220	102,928
65-69	87,025	99,043
70-74	78,392	96,334
75-79	59,230	85,208
80-84	38,061	66,206
85+	25,899	66,268

Source: National Cancer Institute's SEER*Stat at: www.seer.cancer.gov/popdata/

Wisconsin Population Estimates by 5-Year Age Group And Sex: 1999

Age	Male	Female
0-4	171,711	164,113
5-9	196,389	186,741
10-14	207,362	196,908
15-19	208,764	198,303
20-24	178,876	171,922
25-29	172,128	166,974
30-34	189,086	185,152
35-39	220,730	220,291
40-44	219,217	216,734
45-49	196,123	193,342
50-54	160,699	159,654
55-59	121,146	125,141
60-64	99,083	104,884
65-69	85,818	96,871
70-74	78,449	95,401
75-79	60,386	85,398
80-84	38,499	66,205
85+	26,675	67,491

Source: National Cancer Institute's SEER*Stat at: www.seer.cancer.gov/popdata/

Wisconsin Population Estimates by 5-Year Age Group And Sex: 2000

Age	Male	Female
0-4	174,711	166,948
5-9	192,874	183,452
10-14	206,025	195,813
15-19	208,738	198,257
20-24	185,323	177,474
25-29	168,816	162,508
30-34	188,281	183,679
35-39	216,501	216,229
40-44	222,719	220,071
45-49	202,275	198,666
50-54	170,864	169,285
55-59	125,415	129,414
60-64	100,125	105,988
65-69	85,605	96,092
70-74	78,463	94,363
75-79	61,324	85,609
80-84	38,928	66,216
85+	27,772	69,126

Source: National Cancer Institute's SEER*Stat at: www.seer.cancer.gov/popdata/

Wisconsin Population Estimates by 5-Year Age Group And Sex: 2001

Age	Male	Female
0-4	171,862	164,040
5-9	186,483	177,543
10-14	203,580	193,274
15-19	208,229	198,401
20-24	195,135	186,943
25-29	166,772	158,823
30-34	186,633	181,372
35-39	212,294	211,106
40-44	225,926	224,542
45-49	207,934	205,158
50-54	179,262	176,908
55-59	131,874	135,249
60-64	102,389	108,135
65-69	85,288	95,367
70-74	77,859	93,463
75-79	61,459	84,995
80-84	39,826	66,917
85+	29,210	70,890

Source: National Cancer Institute's SEER*Stat at: www.seer.cancer.gov/popdata/

Wisconsin Population Estimates by 5-Year Age Group And Sex: 2002

Age	Male	Female
0-4	173,238	165,399
5-9	183,745	174,922
10-14	203,822	193,681
15-19	208,928	198,743
20-24	201,213	193,500
25-29	166,954	158,048
30-34	183,367	177,466
35-39	205,859	204,207
40-44	226,429	226,031
45-49	211,277	208,573
50-54	184,654	182,101
55-59	139,109	141,788
60-64	106,253	112,390
65-69	85,467	95,427
70-74	76,689	91,984
75-79	62,022	84,513
80-84	40,721	68,146
85+	30,436	72,591

Source: National Cancer Institute's SEER*Stat at: www.seer.cancer.gov/popdata/

Wisconsin Population Estimates by County, Averaged, 1998-2002

County	Population	County	Population
Adams	19,473	Marinette	43,306
Ashland	16,836	Marquette	15,007
Barron	44,967	Menominee	4,575
Bayfield	14,966	Milwaukee	938,853
Brown	227,114	Monroe	40,939
Buffalo	13,801	Oconto	35,656
Burnett	15,640	Oneida	36,670
Calumet	40,902	Outagamie	161,658
Chippewa	55,332	Ozaukee	82,531
Clark	33,572	Pepin	7,227
Columbia	52,494	Pierce	36,768
Crawford	17,134	Polk	41,477
Dane	430,013	Portage	67,063
Dodge	85,825	Price	15,712
Door	27,960	Racine	189,068
Douglas	43,370	Richland	17,908
Dunn	40,023	Rock	152,472
Eau Claire	93,097	Rusk	15,322
Florence	5,085	St Croix	63,935
Fond du Lac	97,265	Sauk	55,023
Forest	9,959	Sawyer	16,243
Grant	49,584	Shawano	40,521
Green	33,663	Sheboygan	112,598
Green Lake	19,160	Taylor	19,634
Iowa	22,791	Trempealeau	26,967
Iron	6,832	Vernon	28,075
Jackson	19,033	Vilas	21,128
Jefferson	75,204	Walworth	92,834
Juneau	24,366	Washburn	16,028
Kenosha	150,178	Washington	117,779
Kewaunee	20,232	Waukesha	361,733
La Crosse	107,043	Waupaca	51,797
Lafayette	16,213	Waushara	23,055
Langlade	20,727	Winnebago	156,715
Lincoln	29,618	Wood	75,516
Manitowoc	82,723		
Marathon	125,838		
		STATE TOTAL	5,369,824

Source: National Cancer Institute's SEER*Stat at: www.seer.cancer.gov/popdata/

Wisconsin Population by Race, Age Group And Sex, Averaged, 1998 – 2002

White			African American		
Age	Male	Female	Age	Male	Female
0-4	147,598	140,516	0-4	17,228	16,663
5-9	164,267	155,765	5-9	18,874	18,395
10-14	178,804	169,466	10-14	17,972	17,270
15-19	184,437	175,608	15-19	15,904	14,875
20-24	167,194	159,512	20-24	12,655	13,304
25-29	151,688	144,359	25-29	11,725	12,742
30-34	170,354	164,834	30-34	11,292	12,442
35-39	199,126	196,668	35-39	11,043	12,612
40-44	207,350	203,790	40-44	10,302	11,850
45-49	189,489	185,175	45-49	8,496	9,814
50-54	160,461	157,583	50-54	6,395	7,335
55-59	120,924	123,339	55-59	4,168	5,132
60-64	96,400	101,207	60-64	3,195	4,081
65-69	82,439	91,945	65-69	2,462	3,371
70-74	75,442	90,745	70-74	1,893	2,595
75-79	59,292	82,706	75-79	1,167	1,772
80-84	38,453	65,294	80-84	544	1,037
85+	27,486	67,918	85+	365	1,038

Native American/ Alaska Native			Asian/Pacific Islander		
Age	Male	Female	Age	Male	Female
0-4	2,353	2,286	0-4	4,950	4,923
5-9	2,717	2,539	5-9	5,483	5,346
10-14	2,883	2,789	10-14	5,849	5,651
15-19	2,643	2,568	15-19	5,462	5,113
20-24	2,199	2,101	20-24	5,017	4,790
25-29	1,970	1,965	25-29	4,798	4,606
30-34	2,053	2,023	30-34	4,261	4,085
35-39	2,072	2,160	35-39	3,508	3,429
40-44	1,902	2,020	40-44	2,605	2,675
45-49	1,549	1,605	45-49	2,111	2,279
50-54	1,173	1,243	50-54	1,581	1,846
55-59	812	881	55-59	1,085	1,260
60-64	614	677	60-64	805	900
65-69	398	490	65-69	542	754
70-74	260	387	70-74	376	582
75-79	180	260	75-79	245	406
80-84	75	160	80-84	135	247
85+	59	150	85+	88	167

Source: National Cancer Institute's SEER*Stat at: www.seer.cancer.gov/popdata/

2000 U.S. Standard Million Population

Age Group	Standard Population
0-4	69,135
5-9	72,533
10-14	73,032
15-19	72,169
20-24	66,478
25-29	64,529
30-34	71,044
35-39	80,762
40-44	81,851
45-49	72,118
50-54	62,716
55-59	48,454
60-64	38,793
65-69	34,264
70-74	31,773
75-79	26,999
80-84	17,842
85 and older	15,508
Total Population	1,000,000

Source: 2000 U.S. Census, Population Estimates Branch, U.S. Bureau of the Census.

Note: The bolded age group is the heaviest weighted group.

Map of Wisconsin Counties



Appendix 7: Supplemental Table A. Number and Percent of Invasive Cancer Cases by Individual Primary Site, Wisconsin, 1998-2002										
	1998		1999		2000		2001		2002	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Lip	55	0.21%	51	0.19%	53	0.20%	42	0.16%	39	0.15%
Tongue	138	0.52%	150	0.56%	117	0.45%	169	0.63%	139	0.53%
Salivary Gland	67	0.25%	65	0.24%	63	0.24%	60	0.22%	59	0.22%
Floor of Mouth	45	0.17%	50	0.19%	45	0.17%	44	0.16%	49	0.19%
Gum and Other Mouth	130	0.49%	105	0.39%	100	0.38%	116	0.43%	90	0.34%
Nasopharynx	20	0.08%	30	0.11%	20	0.08%	30	0.11%	28	0.11%
Tonsil	76	0.29%	79	0.30%	65	0.25%	77	0.29%	78	0.30%
Oropharynx	33	0.12%	31	0.12%	26	0.10%	32	0.12%	27	0.10%
Hypopharynx	57	0.21%	79	0.30%	69	0.26%	44	0.16%	41	0.16%
Other Oral Cavity and Pharynx	15	0.06%	23	0.09%	15	0.06%	11	0.04%	15	0.06%
Esophagus	287	1.08%	334	1.25%	349	1.33%	340	1.27%	336	1.27%
Stomach	378	1.42%	361	1.36%	393	1.50%	387	1.44%	364	1.38%
Small Intestine	80	0.30%	90	0.34%	91	0.35%	93	0.35%	119	0.45%
Colon excluding Rectum	2,367	8.92%	2,366	8.89%	2,408	9.17%	2,236	8.33%	2,155	8.17%
Rectum and Rectosigmoid Junction	871	3.28%	888	3.34%	798	3.04%	771	2.87%	793	3.01%
Anus, Anal Canal and Anorectum	50	0.19%	48	0.18%	44	0.17%	52	0.19%	66	0.25%
Liver	219	0.83%	189	0.71%	200	0.76%	203	0.76%	234	0.89%
Intrahepatic Bile Duct	50	0.19%	48	0.18%	76	0.29%	60	0.22%	58	0.22%
Gallbladder	63	0.24%	72	0.27%	65	0.25%	66	0.25%	79	0.30%
Other Biliary	77	0.29%	90	0.34%	102	0.39%	108	0.40%	103	0.39%
Pancreas	669	2.52%	640	2.40%	593	2.26%	662	2.46%	654	2.48%
Retroperitoneum	17	0.06%	20	0.08%	15	0.06%	7	0.03%	24	0.09%
Peritoneum, Omentum and Mesentery	24	0.09%	15	0.06%	21	0.08%	38	0.14%	46	0.17%
Other Digestive Organs	23	0.09%	12	0.05%	13	0.05%	17	0.06%	17	0.06%
Nose, Nasal Cavity and Middle Ear	36	0.14%	40	0.15%	31	0.12%	27	0.10%	41	0.16%
Larynx	232	0.87%	229	0.86%	225	0.86%	231	0.86%	203	0.77%
Lung and Bronchus	3,665	13.81%	3,615	13.58%	3,497	13.31%	3,624	13.49%	3,609	13.68%
Pleura	56	0.21%	52	0.20%	65	0.25%	65	0.24%	67	0.25%
Trachea, Mediastinum and Other Respiratory Organs	13	0.05%	12	0.05%	9	0.03%	16	0.06%	9	0.03%
Bones and Joints	55	0.21%	59	0.22%	50	0.19%	56	0.21%	54	0.20%
Soft Tissue including Heart	127	0.48%	157	0.59%	159	0.61%	138	0.51%	144	0.55%
Melanoma of the Skin	607	2.29%	643	2.42%	767	2.92%	822	3.06%	830	3.15%
Other Non-Epithelial Skin	68	0.26%	65	0.24%	89	0.34%	62	0.23%	68	0.26%
Breast (male and female)	3,958	14.92%	4,081	15.33%	4,110	15.64%	4,141	15.42%	3,915	14.84%
Cervix Uteri	271	1.02%	276	1.04%	305	1.16%	208	0.77%	199	0.75%
Corpus Uteri	739	2.79%	751	2.82%	753	2.87%	773	2.88%	791	3.00%
Uterus, NOS	49	0.18%	48	0.18%	47	0.18%	46	0.17%	30	0.11%
Ovary	518	1.95%	454	1.71%	479	1.82%	485	1.81%	402	1.52%
Vagina	15	0.06%	25	0.09%	16	0.06%	23	0.09%	19	0.07%
Vulva	76	0.29%	66	0.25%	62	0.24%	75	0.28%	57	0.22%
Other Female Genital Organs	15	0.06%	19	0.07%	16	0.06%	21	0.08%	22	0.08%
Prostate	3,666	13.82%	4,090	15.36%	4,080	15.53%	4,226	15.73%	4,117	15.61%
Testis	196	0.74%	202	0.76%	168	0.64%	173	0.64%	181	0.69%
Penis	22	0.08%	20	0.08%	18	0.07%	15	0.06%	14	0.05%
Other Male Genital Organs	6	0.02%	7	0.03%	3	0.01%	2	0.01%	1	0.00%
Urinary Bladder	1,240	4.67%	1,282	4.82%	1,238	4.71%	1,185	4.41%	1,164	4.41%
Kidney and Renal Pelvis	694	2.62%	755	2.84%	675	2.57%	751	2.80%	746	2.83%
Ureter	30	0.11%	38	0.14%	33	0.13%	39	0.15%	29	0.11%
Other Urinary Organs	17	0.06%	11	0.04%	14	0.05%	16	0.06%	5	0.02%
Eye and Orbit	61	0.23%	52	0.20%	61	0.23%	64	0.24%	51	0.19%
Brain and Other Nervous System	414	1.56%	391	1.47%	387	1.47%	398	1.48%	388	1.47%
Thyroid	316	1.19%	324	1.22%	387	1.47%	391	1.46%	404	1.53%
Other Endocrine including Thymus	39	0.15%	31	0.12%	34	0.13%	30	0.11%	40	0.15%
Hodgkin Lymphoma	169	0.64%	168	0.63%	171	0.65%	162	0.60%	175	0.66%
Non-Hodgkin Lymphoma	1,050	3.96%	1,078	4.05%	1,022	3.89%	1,052	3.92%	1,089	4.13%
Myeloma	279	1.05%	290	1.09%	244	0.93%	310	1.15%	297	1.13%
Lymphocytic Leukemia	383	1.44%	360	1.35%	342	1.30%	378	1.41%	365	1.38%
Myeloid and Monocytic Leukemia	363	1.37%	361	1.36%	332	1.26%	358	1.33%	353	1.34%
Other Leukemia	82	0.31%	70	0.26%	51	0.19%	70	0.26%	55	0.21%
Miscellaneous	1,197	4.51%	667	2.51%	591	2.25%	760	2.83%	827	3.14%
Total	26,535	100.00%	26,625	100.00%	26,272	100.00%	26,858	100.00%	26,374	100.00%

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: For SEER Site ICD-O-3 definitions see http://seer.cancer.gov/siterecode/icdo3_d01272003. Table counts include unknown sex.

Appendices

Appendix 7: Supplemental Table B. Number and Percent of Cancer Deaths by Individual Primary Site, Wisconsin, 1998-2002

	1998		1999		2000		2001		2002	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Lip	1	0.01%	1	0.01%	2	0.02%	0	0.00%	1	0.01%
Tongue	34	0.31%	27	0.25%	34	0.32%	27	0.25%	43	0.40%
Salivary Gland	13	0.12%	13	0.12%	17	0.16%	17	0.16%	17	0.16%
Floor of Mouth	4	0.04%	6	0.06%	3	0.03%	5	0.05%	3	0.03%
Gum and Other Mouth	39	0.36%	29	0.27%	26	0.24%	29	0.27%	29	0.27%
Nasopharynx	13	0.12%	14	0.13%	9	0.08%	10	0.09%	14	0.13%
Tonsil	13	0.12%	12	0.11%	14	0.13%	11	0.10%	8	0.07%
Oropharynx	18	0.17%	13	0.12%	8	0.08%	12	0.11%	14	0.13%
Hypopharynx	13	0.12%	8	0.07%	5	0.05%	5	0.05%	14	0.13%
Other Oral Cavity and Pharynx	28	0.26%	19	0.18%	20	0.19%	30	0.28%	16	0.15%
Esophagus	273	2.51%	266	2.48%	236	2.22%	309	2.87%	295	2.73%
Stomach	218	2.00%	203	1.89%	223	2.10%	218	2.03%	165	1.53%
Small Intestine	31	0.28%	21	0.20%	18	0.17%	28	0.26%	28	0.26%
Colon excluding Rectum	965	8.86%	1,005	9.37%	997	9.39%	935	8.70%	873	8.08%
Rectum and Rectosigmoid Junction	168	1.54%	168	1.57%	177	1.67%	191	1.78%	191	1.77%
Anus, Anal Canal and Anorectum	10	0.09%	5	0.05%	6	0.06%	8	0.07%	3	0.03%
Liver	170	1.56%	149	1.39%	169	1.59%	161	1.50%	178	1.65%
Intrahepatic Bile Duct	60	0.55%	65	0.61%	81	0.76%	77	0.72%	103	0.95%
Gallbladder	39	0.36%	50	0.47%	47	0.44%	40	0.37%	46	0.43%
Other Biliary	34	0.31%	38	0.35%	41	0.39%	39	0.36%	34	0.31%
Pancreas	576	5.29%	576	5.37%	578	5.44%	624	5.80%	660	6.11%
Retroperitoneum	4	0.04%	2	0.02%	2	0.02%	4	0.04%	6	0.06%
Peritoneum, Omentum and Mesentery	18	0.17%	6	0.06%	11	0.10%	21	0.20%	24	0.22%
Other Digestive Organs	13	0.12%	17	0.16%	17	0.16%	17	0.16%	16	0.15%
Nose, Nasal Cavity and Middle Ear	10	0.09%	11	0.10%	6	0.06%	11	0.10%	14	0.13%
Larynx	63	0.58%	69	0.64%	61	0.57%	75	0.70%	49	0.45%
Lung and Bronchus	2,797	25.69%	2,642	24.62%	2,656	25.01%	2,734	25.43%	2,797	25.88%
Pleura	10	0.09%	7	0.07%	7	0.07%	10	0.09%	10	0.09%
Trachea, Mediastinum and Other Respiratory Organs	2	0.02%	2	0.02%	3	0.03%	9	0.08%	3	0.03%
Bones and Joints	23	0.21%	25	0.23%	17	0.16%	24	0.22%	19	0.18%
Soft Tissue including Heart	85	0.78%	85	0.79%	97	0.91%	76	0.71%	86	0.80%
Melanoma of the Skin	143	1.31%	142	1.32%	134	1.26%	148	1.38%	141	1.30%
Other Non-Epithelial Skin	23	0.21%	43	0.40%	43	0.40%	56	0.52%	25	0.23%
Breast (male and female)	864	7.93%	834	7.77%	791	7.45%	827	7.69%	792	7.33%
Cervix Uteri	59	0.54%	67	0.62%	54	0.51%	54	0.50%	48	0.44%
Corpus Uteri	71	0.65%	73	0.68%	76	0.72%	77	0.72%	87	0.80%
Uterus, NOS	56	0.51%	68	0.63%	69	0.65%	73	0.68%	65	0.60%
Ovary	288	2.64%	250	2.33%	294	2.77%	262	2.44%	299	2.77%
Vagina	14	0.13%	11	0.10%	5	0.05%	8	0.07%	8	0.07%
Vulva	26	0.24%	21	0.20%	19	0.18%	21	0.20%	17	0.16%
Other Female Genital Organs	8	0.07%	9	0.08%	15	0.14%	14	0.13%	12	0.11%
Prostate	751	6.90%	681	6.35%	661	6.22%	628	5.84%	661	6.12%
Testis	8	0.07%	10	0.09%	9	0.08%	5	0.05%	7	0.06%
Penis	2	0.02%	2	0.02%	3	0.03%	3	0.03%	1	0.01%
Other Male Genital Organs	0	0.00%	1	0.01%	1	0.01%	1	0.01%	0	0.00%
Urinary Bladder	242	2.22%	241	2.25%	241	2.27%	285	2.65%	269	2.49%
Kidney and Renal Pelvis	227	2.08%	246	2.29%	251	2.36%	241	2.24%	274	2.53%
Ureter	12	0.11%	10	0.09%	6	0.06%	3	0.03%	4	0.04%
Other Urinary Organs	4	0.04%	6	0.06%	4	0.04%	7	0.07%	9	0.08%
Eye and Orbit	7	0.06%	5	0.05%	5	0.05%	10	0.09%	3	0.03%
Brain and Other Nervous System	286	2.63%	252	2.35%	269	2.53%	263	2.45%	265	2.45%
Thyroid	33	0.30%	23	0.21%	35	0.33%	26	0.24%	26	0.24%
Other Endocrine including Thymus	17	0.16%	16	0.15%	19	0.18%	20	0.19%	23	0.21%
Hodgkin Lymphoma	40	0.37%	22	0.21%	25	0.24%	23	0.21%	30	0.28%
Non-Hodgkin Lymphoma	531	4.88%	519	4.84%	487	4.59%	438	4.07%	426	3.94%
Myeloma	212	1.95%	215	2.00%	200	1.88%	176	1.64%	204	1.89%
Lymphocytic Leukemia	153	1.41%	127	1.18%	141	1.33%	145	1.35%	129	1.19%
Myeloid and Monocytic Leukemia	189	1.74%	232	2.16%	211	1.99%	227	2.11%	224	2.07%
Other Leukemia	129	1.18%	110	1.03%	107	1.01%	109	1.01%	95	0.88%
Miscellaneous Malignant Cancer	749	6.88%	941	8.77%	857	8.07%	845	7.86%	906	8.38%
Total	10,889	100.00%	10,731	100.00%	10,620	100.00%	10,752	100.00%	10,809	100.00%

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: For SEER Site ICD-O-3 definitions see http://seer.cancer.gov/siterecode/icdo3_d01272003. Table counts include unknown sex.

